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DEFENSE PLANNING FOR THE 1980'S AND THE CHANGING INTERNATIONAL --ETC(U)
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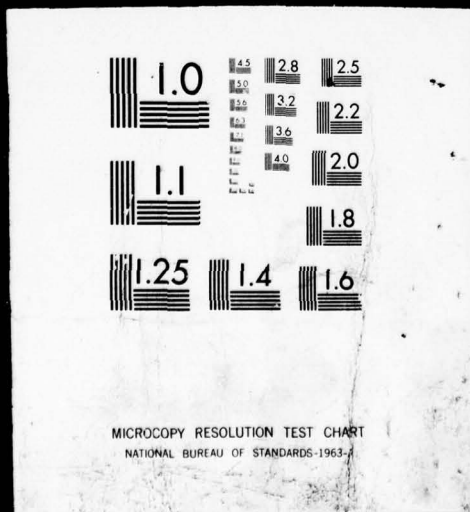
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**DEFENSE PLANNING
FOR THE 1980's &
THE CHANGING
INTERNATIONAL
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Raymond A. Karam



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**National Security
Affairs Conference**
Proceedings

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PROCEEDINGS

National Security Affairs Conference July 8-10, 1974

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International Security Affairs

The National War College

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The views expressed in this *Proceedings* are those of the authors. They should not be interpreted as necessarily reflecting the views of the Department of Defense. The purpose of the *Proceedings* is to disseminate comment and opinion on issues of importance to United States national security.

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TABLE OF CONTENTS

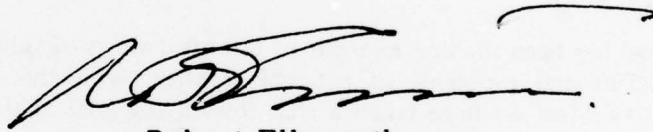
	Page
Introduction	iii
Foreword	iv
An Overview	1
Plenary Sessions	
Honorable William P. Clements, Jr.	7
General Maxwell D. Taylor, Ret.	13
Mr. Max Singer	19
Vice Admiral M.G. Bayne	47
<i>Partial Contents:</i>	
Panel I	52
<i>Strategic Materials—More Vulnerable Bottlenecks Ahead*</i>	
Mr. Simon D. Strauss	53
Panel II	70
<i>U.S. National Security and the Impact of Multinational Corporations</i>	
Dr. C. Fred Bergsten and Dr. Theodore Moran	71
Panel III	91
<i>The Future of Energy Another Look</i>	
Dr. Edward J. Mitchell	92
Panel IV	111
<i>Currency Values & Economic Resources Allocations as Instruments of Foreign Policy</i>	
Mr. William R. Grant	112
Panel V	131
<i>Military Force and Nonmilitary Threats</i> <i>'New'</i>	
CDR James A. Barber	132
Panel VI	142
<i>"New" Forms of Violence in The International Milieu</i>	
COL Seale R. Doss	143
Panel VII	157
<i>Effects of the Middle East War and the Energy Crisis on The Future of the Atlantic Alliance; and</i>	
BG Richard C. Bowman.	158
Panel VIII	168
<i>Japan's Foreign Policy Options in The Coming Decades</i>	
Dr. Martin Weinstein	169

INTRODUCTION

The National Security Affairs Conference, co-sponsored by The National War College and the Office of the Secretary of Defense, has implemented the kind of cooperation essential to national security considerations. The Conference effectively brought together those with a predominantly operational point of view and those who, whether in government, business or academic life, have a more reflective perspective.

This *Proceedings* is a highly significant output of the Conference since, in reporting several days of intensive and extensive discussions, it will reach the wide audience that a broader appreciation of the more pressing problems of national security demands. National security problems become increasingly more complex and related discussions and analyses continue to be of vital importance to our Nation.

I thank all who were associated with the Conference, those who made it possible and those who contributed to the deliberations. Special recognition is due to the Commandant of The National War College and his staff for their role in making the Conference a success.



Robert Ellsworth
Assistant Secretary of Defense
International Security Affairs

FOREWORD

The international environment has undergone significant changes since the 1960s. Some of these have been dramatic, such as the withdrawal of American forces from Southeast Asia or the Strategic Arms Limitation agreements, while others, such as the re-examination of the Atlantic Alliance, have been less apparent. The October 1973 War and the ensuing energy crisis have demonstrated that American security policy continually faces new problems—challenges requiring fresh approaches for changing times. The success of any nation depends on its ability to anticipate and adapt to change, and take steps to solve problems before they become crises.

Our mission at The National War College, to educate selected personnel for high level staff and command positions in both military and civilian agencies, requires that we be forward-looking with concern for the problems of tomorrow. The experience of the last few years has underscored our conviction that changing problems require perceptive insights and imaginative approaches. We at the College welcome this opportunity to examine the complexity of the international environment and attempt to discern the policy implications for the future.

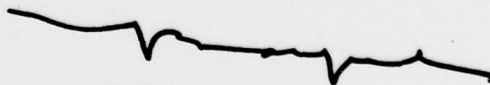
This conference was a unique opportunity for The National War College and our Strategic Research Group to contribute to an attempt to better understand the complexity of interacting world affairs.

Our goal has been the development of informed views of value for those concerned with the major decisions and problems of national security. With this Conference, and through the *Proceedings*, we feel we have taken a step toward the goal of developing perceptive views and disseminating them to decision makers.

The areas selected for investigation were assigned one to each of eight panels. Panel chairmen prepared papers to serve as the basis for discussions, and the discussions and recommendations of each panel have been summarized. Since the eight panels met concurrently over the three-day period, there were opportunities for discussions in depth.

These major papers, together with the major addresses to the plenary sessions form this *Proceedings*.

I thank Secretary Ellsworth for his vital support in making the Conference possible and I express my appreciation to all participants for making the Conference a success.



M. G. BAYNE
Vice Admiral, U.S. Navy
Commandant

The National Security Affairs Conference

An Overview

(The purpose of this overview is twofold: to attempt a brief introduction to the material in this volume, and to assemble for easier review the major conclusions of the Panels and some of the derivative policy implications and considerations. No summary of the three days of meetings is attempted because no summary could do justice to the varied and intense discussions that took place. What is contained in this *Proceedings* does reflect, in some detail, the subjects discussed and the tentative conclusions reached on a number of subjects pertinent to the national security of the United States.)Ed.

Plenary Sessions

In their remarks to the conference both Secretary Clements and General Taylor drew on the experiences of the nation in the recent past and the imperatives of a rapidly changing world environment. To deal with the decade of the 1980's, some of the changes that will, or should be made in the organizational structure of government and the forces at the disposal of US policy makers were discussed. The Nation's views of alliance interdependency, possible adjustments in relations with adversaries and the articulation of and dedication to national goals are some of the important elements of defense planning that formed the basis for conclusions and recommendations by the speakers. Secretary Clements outlined the specific impact on force levels, budgets, weapons systems and other aspects of defense planning that flow from an analysis of the environment of the 1980's. General Taylor proposed specific changes in the organization of the US Government, the formation of a National Policy Council, to help deal more effectively with the increasingly complex aspects of national security.

The future challenges to peace, outlined in detail by Mr. Singer, effectively review those areas of concern treated by the Panels as well as other security considerations not dealt with specifically by the Conference. Challenges to peace such as nationalism, nuclear weapons, communism, regional conflicts, and the search for "solutions" set the stage for a discussion of possible responses and for the need to maintain the morale and determination required to solve problems, while realizing that all-encompassing solutions are not possible.

At the last plenary session of the Conference, Admiral Bayne reviewed the purpose of the conference and noted that not only is the scope of national security considerations becoming larger but the complexity of national security problems is keeping pace, if not increasing at a faster rate. In this brief review of the Panels' work other general highlights and central themes were presented—an uncertain future, the paradox of increasing national interdependency coupled with national defense imperatives. The necessarily large role that the US must play in world affairs and the need to exercise this role with prudence and wisdom forms the capstone of the analyses of the Conference deliberations.

Panel Discussions

The eight Panels divide into four pairs dealing with resources, economic factors, force and

alliances. This brief summary makes no claims to completeness either in exhausting the subject matter nor in reflecting the nuances and subtleties of the Conference. These can be appreciated by reading the papers presented. This summary does convey the scope and nature of the Panel discussions and outlines major conclusions and considerations for policy decisions.

1. *Resources* — Two major components of resources were discussed, the availability of resources essential to national security and the pricing of resources as an interaction of US policy and the policies of producer nations.

(a) Stockpiles of critical materials are required to meet necessary demands in periods of national emergency. The stockpile levels should be established in a non-complex fashion on the basis of historical usage patterns. Stockpiles should include petroleum.

For disruptions due to economic emergencies that adversely effect material availability, additional stockpiles of materials may be a desirable national policy. The methods required for establishing such "economic" stockpile levels, and policies for their use and disbursement should be studied.

An organizational element is lacking in the US Government to deal with materials problems in their many aspects and manifestations. As an example, increasing domestic supply of materials is desirable while environmental considerations have begun to have serious impact on materials production, resulting in costly trade-offs. While autarky in materials is not a reasonable goal for the US, the degree of international interdependence should be reduced a great deal. Government activities designed to encourage increased production are desirable, such as subsidies, tax policy, and trade restrictions.

(b) As to the pricing of materials, US policy should be oriented toward market forces for the determination of prices. This is especially true for energy fuels. Government policies, however, must look to the profitability of industry, as by establishing price thresholds between domestic production and cheaper imports.

While political and economic considerations in cartel pricing of oil are not always distinguishable, they are perhaps not significant. The US response must be to increase its ability to influence cartel oil prices. While the components of consumer nations' influence in such matters are difficult to assess, they should be enhanced to the extent possible. International arrangements by consumers to share available petroleum have utility in times of abrupt dislocations but are less useful under "normal" conditions.

2. *Selected Economic Factors* - Two panels discussed the national security implications of predominantly economic activities: the multinational corporation and the allocation of economic resources.

(a) The multinational corporation (MNC) has acquired a vigor and momentum of its own and plays a significant role in the transfer across national boundaries of capital, technology and managerial skills. These corporations must be recognized as major, and possibly permanent, actors on the international scene and treated as such. MNC's have the potential to serve global stability

and should be encouraged to do so. Under certain circumstances, these large organizations can have a de-stablizing role as well.

High levels of investments and profits in host countries tend to make MNC's increasingly responsive to host government pressures. They cannot be expected to respond to political interests of home governments at a large cost to corporate interests. These relationships are further complicated since MNC's are often involved in sensitive enterprises such as sub-soil rights and communications.

The problems of access to overseas resources can be critical to the US economy and create additional problems as European and Asian allies compete for the same resources. The aggravations of international tensions and strains on alliances can lead to results detrimental to national security, such as demands in this country for the withdrawal of US troops in treaty areas, and increased efforts to achieve strategic independence by middle powers. Threats to resource supply increase hostility and instability in critical policy areas. As examples, interruptions of supply could well result in increased regional tension in areas such as the Persian Gulf, encourage a resurgence of traditional spheres of influence or annexations of territory, or enhance the potential of the USSR as a supplier to Europe or Japan.

There is also the potential impact of the MNC's on communist countries. While MNC operations can be used to "build bridges" between the East and West, there is the danger that this activity could be too much one way—from West to East. Developing Soviet resources may benefit all nations by diversifying potential suppliers. On the other hand, assistance in such development could well induce economic interests in the West to press for further concessions in loans and technology transfer that could erode national security interests by easing the difficult choices of the Soviet government in the allocation of limited resources to defense and other areas.

The presence of foreign-based MNC's in the US does not necessarily represent a threat to national security, but should be closely monitored. The US should not permit the export of essential skills and industries beyond critical levels.

There is a need for improved policy strategies so that the US can better influence MNC growth and operations. One strategic goal may be to encourage MNC's to shift, where possible, from operations vulnerable to host country control to service and management contracts. MNC's can be used to stimulate the diversification of the international economy. The alternative of national self-sufficiency as a goal carries with it the serious problems of higher costs, alliance difficulties due to non-cooperation and other detrimental changes in the international environment.

The US cannot afford to become overly dependent on MNC's operations nor assume MNC responsiveness to US national interests in all circumstances.

(b) The allocations of economic resources are a vital aspect of national security considerations. Without domestic economic health, there are few defense and security necessities that can be achieved.

The US has depleted domestic accumulations of excess capital resources and this fact is not fully appreciated. It is highly desirable to help organize the US decisionmaking process by having a general conference of all the fiscal constituencies to evaluate and establish assumptions for the future.

The inflationary pressures on economic factors must be abated. A great deal can be done by moderating excess consumption of energy, food, and materials by moral suasions. Plans to temporarily assist affected industries and personnel are necessary.

In the area of resources, it is necessary to use capital resources and tax incentives to develop new technology for substitute materials. In addition, the US should barter capital and technology for the few foreign raw material sources needed. Stockpiles of strategic materials could make up any anticipated deficit. It is essential, however, that we understand the world's need for our capital, technology and *managerial talents*.

US laws and regulatory authorities should be restructured to reflect the new socio-economic world of the 1980's while the US establishes a leadership position in new economic and financial structures. It is necessary, at the same time, to avoid the temptation of too much Government influence (in the extreme, the nationalization of industries) striving to integrate the political power of government with the efficiency of the private sector.

And, in the employment of political power through the agencies of Government, executive and legislative, the gravity of the problems and their complexity require a sense of specific economic purpose and organization. Diverse goals and procedures cannot lead to desired outcomes.

3. Force — While force has many manifestations, the two discussed by the Panels are characterized as military and extra-military. Their effects on national security vary as widely as do the components of these two characterizations of force.

(a) Military force is essential to stability in the international environment and will remain so through the 1980's. The very difficult question will turn on a determination of "enough" force. It is becoming increasingly clear that the US cannot buy "extra" forces because of urgently competing demands for resources.

There is the possibility that there is a limited utility in the employment of force by the US since a military response can be only a part of a multi-functional national policy to deal with economic, political, and psychological challenges in the complex, interdependent environment of the 1980's. But, there are certainly possible situations where force would in fact be used and, to best be able to do so, it is essential to determine carefully concepts for uses of military forces short of actual employment. Failing in this analysis, it is likely that forces would not be used as well as they might be, and the domestic support for forces in being may be difficult to muster.

Balanced forces in being and national resolve are essential to deter the use of force, or the threat of such use, by others. But, it must be remembered that the basic problems facing the world, those associated with energy, food and financial crises, lend themselves to solutions by other

aspects of national power.

(b) Non-conventional threats to national security such as extra-military forms of violence can be partially met by the use of military forces. Dealing with terrorism or sabotage on a disruptive scale by military forces organized, trained and equipped to fight on the nuclear battlefield calls for careful analysis and restructuring.

It is true today, and will be even more pertinent in the 1980's, that most of the world is mechanically and psychologically vulnerable to denial or disruption by terrorism or sabotage by groups lacking conventional power. Partisans have the initiative and there are many pressure points in an industrial urban society. A society organized to maximize economic efficiency is vulnerable and reducing that vulnerability may fundamentally change the nature of the society.

This vulnerability requires new responses in terms of contingency planning and preparation to limit damage, defend essentials, meet essential needs and isolate and neutralize partisans. If only limited steps are taken, there will be no fundamental alteration of societal relationships, but the efficacy of the defense must also be limited.

4. Alliances—the two alliances discussed, NATO and Japan, do not exhaust the critical alliance relationships of the US in the 1980's, but they do represent those two portions of the world that, together with the US, form the bulkwork of Western defense. A serious erosion of any part of these alliances must seriously affect the security interests of the US.

(a) There is a consensus that, Atlantic Alliance bonds notwithstanding, the US may have to "go it alone" in a future Middle East crisis as Europeans continue to be subject to oil pressures. As a result, US forces must continue to be ready to deploy rapidly and in sufficient numbers to deal effectively with Middle East contingencies. This means a continuing need for Mediterranean and Indian Ocean naval forces and substantial air and sea lift capability.

One way of minimizing large US involvement which could be disruptive of the alliance, is to restrain, on the part of all arms suppliers, further large shipments that tend to fuel the arms race in the Middle East. While the need to absorb the large income of oil producers tends to encourage arms sales, it may be possible to enter into agreements with other arms suppliers, implicitly perhaps, to decrease arms supplies to the Middle East area.

Even though European unity was found wanting in the 1973 crisis when nationalistic sentiments prevailed, and European unity tends to decrease US influence, such unity and cohesion is desirable for military and political reasons. It should be encouraged by the US except where it cuts directly against US interests.

As a part of such cooperation, much heavier emphasis must be laid on greater efficiency through cooperative ventures in areas of common weaponry and common logistics within NATO. The long run pay-offs in better defense and lower cost are clearly worth the costs to the US and its allies in subordinating more narrow military and economic interests to the goal of standardization of equipment. The needs to achieve efficiencies, such as standardization, are demonstrated by the influence of the balance-of-payment problems and surging inflation on defense budgets and by

effects on combat readiness of NATO forces.

In all of the relations among allies, the US must do more than pay lip service to consultation by engaging in a *continuous* consultation on matters which have mutual concern. The recent strains on cooperation require a search for new forms of cooperative action. In this respect, US diplomatic missions in Europe, kept fully informed of US policy and activity, should be used more extensively in day-to-day consultations with allies. The US must maintain the confidence of each government if we expect cooperation from the NATO community as a collective.

(b) As to Japan, the Mideast crisis highlighted Japan's vulnerability to import disruptions. Cooperative ventures to insure access to raw materials supply are a necessary element for Japan's economic stability and growth. Such cooperation should be furthered by revitalizing the existing Security Treaty, along economic lines. Without weakening our defense arrangements, emphasis in US/Japanese relations should shift from military questions toward development of economic cooperation, and greater mutual trust through closer ties and improved consultation.

Japanese economic ventures with the USSR and China should not be opposed by the US. If grave security implications are foreseen, the US should make its views clear to Japan. At the same time, US policy should be aimed at convincing Japan that US-Japanese Alliance interests take precedence over US-China relations.

The US must recognize the major role and status that Japan's economy and pride will demand, and deal with Japan increasingly as a friendly, but independent emerging major power, both economically and, potentially, militarily. US policy must often be passive so that the Japanese may determine their own future. To do otherwise may endorse a continued dependency on the US at higher levels of commitment than are desirable. As an example, the US should not force Japan to ratify the NPT. No affirmative US action should be initiated for or against ratification.

US forces based on Japanese Territory provide strategically valuable forward bases although they create or continue certain tensions.

Here, then, are the bare bones of the Conference deliberations. While setting forth in broad form a road toward policy actions for the next decade, they point also toward a need for much careful study of specific national security problems. And, these problems are more efficiently dealt with after study than when confronted in crises.

Keynote Address

Honorable William P. Clements, Jr.
The Deputy Secretary of Defense

Admiral Bayre, Distinguished Guests, Ladies and Gentlemen:

It is always a pleasure for me to be at The National War College, but I'm especially pleased today to be the Keynote Speaker for this National Security Affairs Conference. I heartily support your conference, as I believe it is important that we sponsor settings in which the best minds from the military and civilian communities can meet together for frank exchanges of ideas. It is not enough for military officers to talk only to military officers or for international economists to talk only to international economists. We all need the opportunity to test ideas against a variety of backgrounds, to cut through rhetoric and develop the real issues, and expose them to vigorous debate. The National Security Affairs Conference provides just such an opportunity, and I'm delighted to join you.

The theme of the conference - "Defense Planning for the 1980's and the Changing International Environment" - is well chosen. The international environment obviously is changing rapidly, and the capability of the United States to control the change is also changing. Yet, we do have a responsibility for helping to shape the evolution of the international environment in the interests of world peace and our own security. Defense planners are charged with maintaining the military preparedness required to support the United States foreign policy.

Today, some critics argue that the responsibilities of the United States as a leading power should be redefined - that we have not worn our mantle of responsibility well. However, it seems reasonable to conclude that the record of the United States in world security affairs since World War II has been sound, and on balance, successful. The world today is a better place than it would have been without our leadership. European recovery under the Marshall Plan, western security under NATO, East Asian stability through our security efforts under U.N. auspices and the alliance which provides the nuclear umbrella to Japan - these and many more American initiatives have added to world stability. Only the naive could expect a condition of perfect and enduring harmony among nation states whose interests sometimes conflict. We should not let our perspective on the security tasks of the United States be driven by a bad experience in Vietnam. We must take a larger view, appreciating the contribution our involvement has made in past years, and settle down to our security requirements over the long haul in a rapidly-changing world.

How do we best plan for the decade ahead? How can we use the fact of today to lessen the uncertainties of tomorrow? More fundamentally, what are the basic facts of today which will influence most strongly the national security picture of the 1980's? I would not pretend to have all the answers, but I do have some observations which might help us ask the right questions as a starting point for discussion and debate.

The Post-Vietnam War period can be characterized for the American people as a period of "Rising Expectations":

- expectations that our foreign policy will result in peace;
- expectations that negotiations with the Soviet Union will inevitably be successful;
- expectations that a successful foreign policy will decrease the need for defense, allowing the money saved to be channeled to domestic needs.

Given these expectations, the continuing requirement for defense preparedness sometimes seems an unnecessarily heavy burden to the American public. It is difficult to persuade Americans that dangers to the security of our nation remain despite detente. This mood of America is not unique to our country; it's part of the shift in mood in public priorities among most western democratic societies, where the emphasis is moving to matters of social welfare. We should realize that all people throughout the world have the same basic aspirations - to improve their lot in life. Nor is the present mood of America on matters of security unique. The mood is part of the traditional American approach to foreign policy. The primacy of domestic affairs, the dissociation of power and diplomacy, an aversion to violence, the dislike of large standing military forces - all these traditions are reflected in the American mood today.

This relative complacency toward our defense needs is part of the political climate in Congress. The message from Congress appears to be: reduce overseas commitments and the number of U.S. troops stationed abroad; let others do more to defend themselves; hold the line on the defense budget despite inflationary trends, but don't reduce security. We should not infer, however, that Congress does not believe in the importance of security, for they do indeed. But, given increasing competition for the budget dollar, Congress cares a great deal about how we fulfill our commitments, and our defense programs are subject to close and careful scrutiny. Our parent committees in the Congress perform an outstanding job in "riding herd" on DOD.

We all can have great hopes for the success of SALT, MBFR and other negotiations with the Soviet Union; but we must "keep our power dry", and remain prepared in the event that our high hopes, and hard work, do not lead to successful negotiations. We cannot, and will not, negotiate from a position of weakness either now or in the years ahead. Yet, the downward pressures on the defense budget at a time of sharply increasing costs present a dramatic challenge to national security planners who are confronted by undiminished defense commitments during the decade ahead. It should come as a surprise to no one that you can't have "champagne taste on a beer budget."

We must be alert to the dangers and be careful to avoid the tendency to base our defense posture during a time of detente upon the presumed intentions of our potential adversaries. To begin with, we must be careful with the term "detente." It obviously does not describe a situation of perfect harmony of American and Soviet interests throughout the world. We are in the "courtship" stage -- the marriage and honeymoon will come later, perhaps. I like to define detente in its present development as "a period of evaluation and justification." A recent effort to drive down the defense budget -- the so-called "Warnke Report" -- rests its case squarely on detente and on the assumption that the Soviets have no intentions of aggression against American security interests. That's all well and good if true, but that view overlooks the fact that the Soviets have been consistently increasing their defense expenditures. We can't be sure about Soviet intentions;

and until we are sure, we must be prudent and not expose our security to unacceptable risk. How we deal with Soviet leaders may change when we are confronted by different Soviet decisionmakers. We must always be ready for that eventuality and we must remember that defense weapons production cannot be turned off and on like a water spigot when leaderships change—or change their minds. All of us must be aware that major weapons system development requires from five to ten years. And as we assess the 1980's, we must constantly keep in mind that there is an inherent risk in complacency—or mistaken evaluation—of Soviet “intentions,” and in any naive interpretation of detente. We must negotiate, and with complete good faith, but only from the position of confidence in our own capability. Our national security posture must always rest on balanced assessments which consider an adversary's existing and proposed capabilities versus his stated intentions. If there is a difference in the two (capabilities—intentions) then those differences must be reconciled by hard bargaining in negotiations at the highest level if detente is to succeed.

Although the future is always less than clear, there are some aspects of national security in the 1980's which appear relatively predictable. Decisions have already been made—and more are made each day—to set in motion the plans, policies and programs which will strongly influence the character of U.S. forces for the years to come. We are developing the Trident, B-1, F-14, F-15 and our family of cruise missiles as stand-off weapons. These systems are more “effective” than any we have ever had before, but they contribute to a credible military force only if we have a “sufficient” quantity of them. Given normal budgetary constraints, this means that the price per copy must be low enough for us to afford a reasonable number and a suitable variety. Our new philosophy keys on unit cost—on controlling unit cost—so that we will be able to acquire the appropriate number and mix of modern weapons. This philosophy of weapons development is probably familiar to most of you. Its most well known management procedure is the so-called “design-to-cost”—which involves tradeoffs between performance, cost, and delivery schedule, and which depends upon our research and development facilities to design weapons which are less costly to maintain as well as less costly to produce.

Good management of weapons development means not only initiating needed programs, it requires being able to stop progress already underway on a weapons system when the situation demands it. Experience has taught me that the most difficult thing to do in the Pentagon is to stop a program which is in progress. Controlling the costs of weapons systems and adapting our forces to changing needs means stopping programs on occasion. Doing so is not easy. Even good, dedicated, professional people have a very natural, most human tendency to identify themselves personally with programs they have developed and initiated. Individuals, and organizational units, tend to take on a momentum of their own which can be tough to stop even when it has become clear that the direction is wrong. The nation cannot afford this. I have already indicated to the services that we cannot tolerate the luxury of programs for programs sake. As the Deputy Secretary of Defense, I will not condone them. Furthermore, I am on record with the Chairmen of our Parent Committees in the Congress that our programs must be fully justified, cost effective, and must match the nation's national security requirements of the 1980's. If these criteria are not met, I assure you, programs will be restructured—or terminated. Jim Schlesinger and I are in complete agreement in this regard.

I'm always mindful of the need to re-emphasize the role that people play, and will continue to play throughout the 1980's in our national security efforts. I want to mention two important aspects of the personnel picture that deserve your special scrutiny as you explore national security policy for the 1980's.

First, let me attack the theory of "runaway" manpower costs. You have all read newspaper accounts in recent months lamenting the high cost of military personnel, and questioning whether or not the volunteer force is affordable. The cost of personnel -- which now represents 58 percent of the total DOD budget -- is frequently portrayed as an endless upward spiral, threatening to absorb an ever-increasing proportion of the defense budget, thereby choking-off essential initiatives in other areas.

That theory is a myth; and the associated fear is a false fear. While it is true that personnel costs have grown as a proportion of the overall DOD budget -- from 43 percent in FY 1964 to more than 55 percent today -- that growth resulted principally from a series of one-time adjustments in wage rates to achieve "comparability" with civilian wages.

All of us in the Defense Department, civilian and military, have a keen awareness of the impact of personnel costs in relation to our total budget; and under no circumstances can we allow this percentage factor to creep upward. To the contrary, one of my goals is to push it downward. For your perspective, according to our best estimate, the comparable Soviet figures show that approximately 28 percent of their defense budget goes for personnel. This, in spite of the fact that their Armed Forces are substantially more manpower intensive than our are.

My second theme concerns the way we should structure our Armed Forces, and the jobs we should call upon our men and women in uniform to perform, in order to be best prepared to meet the military requirements of the 1980's. This is a huge question, including issues of force-structuring (so-called "tooth-to-tail" ratios), civilianization and contracting-out alternative, the potential for automation, and other major considerations.

At this point, I would simply ask you to note that a paramount decision is that concerning the role and character of our reserve forces. While the program for the reserves in the 1980's is not yet fully developed, it seems unquestionably clear that a citizen army of reserve forces -- of the sort we have relied on so heavily in the past -- is not ready enough, mobile enough, or sufficiently integrated into the overall active force structure to provide the responsiveness and flexibility we will require. Finding solutions to these problems, and constructing a reserve force to meet our needs is one of our top priorities in preparing for the decade ahead. My crystal ball clearly indicates changes in the structure of the guard and reserve forces.

Even less predictable for the 1980's than the issues I have mentioned so far are the patterns of international relations. It appears reasonable that the major alliance structures with which we are most familiar will remain. For example, there are fundamental compatibilities between the cultural heritages, political systems and basic security needs of the United States and Western Europe which will sustain NATO. Yet, one might expect a far more complex pattern of international relationships to develop, which may strain our traditional alliances, as nations compete in the international marketplace for the dwindling reserves of natural resources. The national self-interest in security that leads nations into alliances will be interfaced with competing national interests of these same

nations for access to scarce resources. Foes in the security context may behave like friends in trade relations, and vice-versa. Today, we are witnessing examples of such a potential trend. In the International Law of the Sea conference, the United States and the Soviet Union share an interest in supporting "Freedom of the Seas" against countries which claim extensive jurisdiction over large segments of the ocean and its seabed. As another example, we are closely aligned with the Japanese for the security of Asia, but we are direct competitors in the commercial marketplace, especially for trade and influence with resource-rich third world countries.

The present level of competition for scarce resources can be expected to increase and to involve the vital interests of the United States. The U.S. is dependent on a long and growing list of mineral and energy resources. Today we import 100 percent of our platinum and manganese, 75 percent of our nickel, bismuth, tin, asbestos, titanium, and fluorine, and over 25 percent of such basic materials as copper, iron, silver, gold, mercury, potassium, petroleum, lead, cadmium, and gypsum, with the extent of our dependence in these latter categories growing rapidly. While we import some of these materials from Canada and Western Europe, the vast bulk comes from the less-developed nations and constitutes for those nations increasing political leverage, such as the Arab use of oil during the past several months. Producer boycotts, cartels, price fixing, and currency manipulation may become routine subjects for negotiations between the major producing and consuming nations.

Because many minerals and, especially, energy supplies are critical to U.S. defense programs and requirements, we must assess the long-range strategic impact on U.S. military capabilities of these potential producer threats. We must examine the degree to which our current political alignments parallel our raw material and resource requirements and consider how we can, through the various instruments of diplomacy, increase the reliability of our supply of key materials. We should explore our ability to create alternatives and substitutes in the event vital resources are denied us, and to develop our capability to locate and exploit domestic or alternative foreign sources of supply.

In the context of dwindling domestic resources and greater dependence on imports, one consequence for the 1980's and 1990's is entirely predictable: our lines of communication will be extended, and therefore more vulnerable. As a result, greater emphasis must be placed on our ability to secure them, which means our navy. Its mission, its budget, its equipment, and its strategy all become increasingly important, and must be given continuing review.

In my remarks so far, I have outlined in general terms some trends and forces which will determine the international environment and influence national security in the 1980's. I'm confident that you are interested as well in how these generalizations translate into specifics. Let me outline briefly a topical listing of what I see those specifics to be:

Size of Forces:	Smaller
Weapons:	More complex and cost effective
Army:	Probably smaller, higher quality, more ready

Reserve Forces:	Smaller, higher quality, more ready
Navy:	Larger, more complex, higher quality
Air Force:	Smaller, more expensive, more complex, higher quality
Marines:	About the same
R&D:	More money, less government labs, more by contract and industry. Lasers, atomic, exotic metals, electronics and computers, satellite surveillance
Intelligence:	Better management, more electronic automation, better analysis, fewer people, better trained
Unified Commands:	Restructure, revise mission definition, more function orientation; strategic vs tactical vs logistical support
Industrial Base:	Will shrink, stronger financially, healthier, more consolidation, more specialization.
Education in the Services:	Will be revised drastically (including some important segments of training). Less money spent, more direction, more specialization, more effective
Budget:	Up

In other words, we will spend more money on fewer people, be more cost effective, turn even more to high technology, develop more effective management, promote more commonality in the services, and introduce greater standardization.

NATIONAL SECURITY IN THE 1980's

Maxwell D. Taylor

Recent national experience, which has included such diverse high points as the Bay of Pigs fiasco, the Cuba missile crisis, the prolonged war in Vietnam, and the recent energy crisis, has provided adequate evidence of the expanding dimensions of our national security. It has become quite clear that national security in its literal sense cannot be assured solely by the action of our Armed Forces in resistance to the military aggression of foreign powers. To have relevance to current conditions it must signify a state of protection afforded all our principal national valuables—assets, interests, and sources of power—from all serious threats, foreign and domestic. Meanwhile the valuables requiring defense are assuming new forms and appearing in widely separated places where they are exposed to dangers of which an ever increasing number are nonmilitary or civil. Thus, as we approach the 1980's the scope of national security tends to widen and to undergo modifications which place increasingly complex and exacting demands on our leaders and the national resources at their disposition.

There are numerous reasons for believing that in the 1980's non-military threats to our security will predominate. The great powers who alone are capable of waging major war will be inclined to avoid hostilities which might expand into World War III or, at a minimum, modify the political or economic status quo to their disadvantage. The industrial countries will be deterred by their mutual economic interdependence, by scarcities in their resources, which like petroleum are essential to support war, and by uncertainty as to the support of their people for war in any form. The Union of Soviet Socialist Republics will share some of these constraints of the capitalist powers and, in addition, must have regard for the behavior of the Peoples Republic of China and of certain of their European satellites.

If major war seems to have a low probability in the 1980's, that is not to say that all will be international tranquility and good will. In the anticipated environment, there will be no dearth of causes for conflict arising from such matters as competition for markets and raw materials, cartel efforts to raise prices of scarce commodities, contention over environmental pollution, and depletion and rivalry in the exploitation of the riches of the seabed. There will be the perennial resentment felt by the Have-nots for the inadequate assistance rendered by their affluent neighbors, leaving them weighed down by hopeless poverty, malnutrition, disease, and bad government.

Although such conflicts may lead to war, initially they are more likely to assume political, social, or economic forms and will often arise as a consequence or by-product of population growth. Throughout the 1980's and well beyond, population growth is one factor which is sure to be present, acting as a pervasive, disruptive influence upon the internal tranquility of nations and their external relations with neighbors. As a serious threat to peace it must receive continuous attention in our security programs.

Within the United States we already perceive internal trends and conditions which may create nonmilitary threats to our security in the 1980's—if not sooner. They include phenomena such as a

decline in national unity, a loss of faith in American ideals and institutions, and economic problems arising from inflation, recession and reduction in productivity. Then there is a growing proclivity—almost a national pastime—for undermining authority in any form, one which in the 1980's is likely to plague President Nixon's successors in ways reminiscent of the present.

The United States is unlikely to have a monopoly on these internal ills. Even today, the leaders of most of the democracies with whom we are allies are in deep trouble with their electorates, and many of their problems are apt to grow in rough proportion with the increase of their populations. It is not hard to imagine the occurrence of major changes in the form of governments in the 1980's, including some in Europe, either by constitutional or revolutionary means. What would be the effect on our security and how should Washington react if barricades reminiscent of 1848 began to appear in the streets of European capitals?

These are some of my reasons for believing in the predominance of nonmilitary threats in the coming decade. National leaders, although seeking to avoid war, will continue to react strenuously and sometimes aggressively to the promptings of fear, greed, ambition and prejudice; the inciting causes of conflict throughout history. To guarantee our security in such times, we shall need a composite of military and nonmilitary weapons in our arsenal, ready for quick and judicious use.

The military component of such an arsenal is more easily designed than the nonmilitary. We shall continue to need both strategic and general purpose forces in this period. I would hope, however, that by the 1980's we shall have reached agreements with the USSR which will permit us to reduce our strategic forces well below present levels. With or without an agreement, I would hope that we would use our resources to maintain a strategic retaliatory missile force of limited size but maximized quality and invulnerability—one entirely submarine-based until a better way has been found to conceal our missiles at a distance from our shores. Additionally, I would want a small strategic bomber force and a modest excess of nuclear warheads, beyond the needs of an "assured destruction" target system, to serve as a safety factor against unexpected contingencies.

One would hope that it would never be necessary to use such a force operationally in the 1980's. It will have served its purpose if it continues to deter nuclear attack and contributes to stiffening the backbone of our leaders if in a crisis the Kremlin ever rattles its missiles to awe us.

On the other hand, our general purpose forces are sure to find active employment, although one cannot say definitely where and how. They are likely to be needed to fly the flag in areas of strategic importance—the Mediterranean, the Persian Gulf, Southeast and South Asia—sometimes as permanent deployments, at other times as transient visitors. Large overseas garrisons including those in NATO are likely to decline in size in order to give strength to a central strategic reserve capable of quick reaction.

Other plausible tasks for general purpose forces include keeping open the sea-lanes which join the United States and its most important allies to the sources of their vital imports; protecting U.S. nationals and their property overseas in the chaotic conditions often to be expected in this time of troubles; enforcing international decisions bearing on marine fishing, seabed exploitation, transit rights of straits and canals under national jurisdiction; cooperating in the international restraint of pollution, skyjacking, international terrorism and the drug traffic; participating in peace-keeping

activities and the relief of natural disasters; carrying out military reprisals as directed by civil authority.

The effectiveness of our general purpose forces will depend on a number of factors, the influence of which is difficult to anticipate for the future. If we continue to rely upon volunteers for military manpower, the size of these forces will be limited by the availability both of funds and of qualified recruits. Both are likely to be insufficient in relation to the missions which the Joint Chiefs of Staff will foresee for these forces yet one cannot be sure that quality of their personnel and equipment will compensate for their lack of size. One may also wonder whether by the 1980's feuding will have ended between the White House and the Congress over the control and use of these forces. The recently enacted War Powers Resolution will always harbor the possibility of a jurisdictional impasse preventing their employment as an instrument of policy. A final question might be how Americans in general will feel in the 1980's about going to war in the name of national security. Probably we will never be sure of the response until the situation arises, but in the meantime we must keep forces available to allow a military option for our leaders.

Despite obstacles, and there are many, I would have no doubt as to the capability of our military leaders to shape the size and structure of the Armed Forces in consonance with the probable threat to which military force may provide a suitable response. They have the planning and operational experience to carry out such tasks, and the nation has ample resources to support their legitimate needs.

I do not have the same confidence in the ability of the civil sector of our nonmilitary forces in support of national security. There are deficiencies—human, organizational and procedural—which make the task far more difficult than in the military sector. One basic reason is the fragmentation of our civil resources throughout much of the executive branch in contrast with the concentration of the military in the Department of Defense. Also, there is no integration mechanism similar to the National Security Council to bring together the fragments in effective interdepartmental programs. In most cases, the President has only limited authority to use them without specific Congressional approval. If called into action, our civil agencies generally lack adequate sources of reliable information and operational data to support their plans and programs. Finally, the planners and programmers themselves are likely to be men with little training and experience for the tasks in this complex field.

If asked to propose measures for improvement, I would suggest three specific actions. The first would be to expand the National Security Council into a National Policy Council responsible for surveying the entire span of national security and, like the present NSC, for "advising the President with respect to the integration of domestic foreign, and military policies related to national security." Its new membership would include not only the President, the Vice President, and the Secretaries of State and Defense, as now in the National Security Council; but also the Secretary of the Treasury, the Secretary of Health, Education, and Welfare, and the Chairman of the Economic Policy Panel, the last three to give adequate representation to the nonmilitary sector.

Subordinate to the National Policy Council, I would foresee the need of four panels for (1) Foreign Policy (Chairman: Secretary of State); (2) Economic Policy (Chairman: a Presidential appointee); (3) Fiscal-Monetary Policy (Chairman: Secretary of the Treasury); and (4) Public

Welfare Policy (Chairman: Secretary of Health, Education, and Welfare). Panel members would be representatives of the departments and agencies with major responsibilities in the field of each panel. To fill the need for adequate data-information banks, each panel would be charged with maintaining a data repository adequate to support its needs.

Because of the large number of long-term problems arising in the field of each panel, I would anticipate a need for several permanent study centers to work constantly on matters such as population growth, inflation, energy, resource scarcities, food, environmental degradation, arms limitations, and foreign commitments. In combination, the panels and the study centers would coordinate and oversee cognate activities taking place simultaneously in different parts of the executive branch.

If the National Policy Council functioned as I would hope, it would serve as the forum for the formulation of all major interdepartmental policies since they are certain to have some bearing on national security in its broadened concept. In this role, it would be obliged to weigh priorities between programs competing for national resources and thus permit a fair hearing for domestic as well as foreign needs. Its underpinning of permanent panels and study centers would fix responsibility for the continuous study of all major security problems and would eliminate the need to scurry and find ad hoc "czars" and improvised staffs to deal with unexpected emergencies. Cabinet officers, often ignored in past National Security Council practice, would occupy important positions in the National Policy Council mechanism related to their statutory responsibilities.

A second proposition for the improvement of the nonmilitary sector would be directed at the quality of the personnel who are to be the engineers controlling the organizational machinery. To moderate the impact of frequent changes in senior civil personnel, it would be a relatively simple matter to require that all senior political appointees agree to serve at least two years in the post to which assigned and undergo at least a month's preliminary training before settling into a seat of authority. Thus they would have time to learn something about the organization and functioning of their own department and of its relations to the rest of the executive branch and to Congress--also the names and telephones of their principal associates. These are matters which the ordinary newcomer acquires only after months of learning on the job.

There is a long-standing need for a layer of professional government managers between these political appointees and the senior civil service. To form such a class, it would be necessary to proselyte and train promising young talent, somewhat after the practice of big business. One way would be to create a Government Management Corps (GMC) to give civil agencies the benefit of a professional corps like that provided to State by the Foreign Service and by the officer corps in the military services. To provide high quality input for the ranks of the GMC, it would be advantageous to establish a postgraduate Institute for Government Management (to give it a name), to which government-nominated candidates could be sent to obtain a Master's degree in preparation for admission to the GMC. This kind of training could take place in a government-operated institution run somewhat like the National War College, in a school conducted by a not-for-profit corporation under government contract, or in the graduate school of some university. There are pros and cons for each of these alternatives but any one could be made to work if the concept itself had the sincere support of the executive branch and of the Congress. Provided the GMC acquired prestige by the quality of its members and by the importance of the posts to which they were

assigned, it would be a progressive step in raising the status of government service and in providing a stable, professional element for the senior echelons.

My final point lies in an entirely different field—the conduct of our foreign relations in the 1980's. In the course of developing new policies, plans, and programs, the National Policy Council would of necessity become aware of a need for substantial help from certain foreign nations if we are to achieve our policy objectives. Such a realization should stimulate an analysis of the kinds and quantity of help we should seek and a determination of the countries which might be capable of providing this help. Thereafter we would be able to review our current alliances and commitments, ascertain their relevance to the probable future, and thus develop guidelines for any new undertakings.

My own efforts to make such an analysis indicate that we shall probably need help from foreign sources for three major purposes: *a*, to avoid an unfavorable shift in the balance of power between the five major power centers—Western Europe, Japan, the Union of Soviet Socialist Republics, the Peoples Republic of China, and the United States of America; *b* to maintain economic and monetary stability within the capitalist world; and *c* to generate international cooperation in dealing with global problems transcending national capabilities. My list of the countries able to make a significant contribution to one or more of these purposes contains only about 20 in contrast to the some 40-odd countries to whom we are presently allied. Another notable point which might be anticipated is that the contributions which we would desire in the 1980's are preponderantly nonmilitary and generally related to purposes *b* and *c* above. Without defending the validity of these personal conclusions, I am convinced that such a review of alliances and related matters is essential as a measure to bolster the nonmilitary sector of our national security.

Whatever comes to our efforts to improve the civil sector, we must assure that the entire national security program for the 1980's is solidly rational in the use made of the military and civil resources committed to it. The strength generated must be real in the sense that, if challenged, it has the power to overcome obstacles to the national purpose and to fend off threats to the national valuables. In a political system like ours, with an alert political opposition and a vigilant adversary press, our leaders cannot hope to disguise weakness as strength or deceive foreign foes through bluff or stratagems—not and get away with it. If only because fellow Americans stand ready to expose them red-handed, our leaders responsible for this serious business of national security must realize that honesty is not only the best policy, it is the only policy possible.

This point is important because one occasionally hears the argument that we should adjust our national posture to increase its "perceived strength" as if this were something different from "real strength" as I have defined it. Presumably, perceived strength derives largely from size and numbers and, like beauty, resides in the eye of the beholder—hence, we should increase the numbers of our strategic weapons, our divisions, our reserves, and even of our allies to impress all parties including ourselves. Unfortunately, many of such quantitative increases would waste resources in buying needless strategic "overkill," in maintaining combat units without adequate logistic support for sustained operations, or in cultivating allies with little or nothing to contribute to our future needs.

The quest for perceived strength is dangerous business unless it is essentially identical with real strength. It is equally dangerous for us to ignore the consequences of perceived weakness, a point rarely made in evaluating our national security. At present, our greatest weakness is both perceived and real. It is the divided state of our society, the rivalry for power between branches of the government, the decline in the effectiveness of Presidential leadership, and the depressed state of the national morale. These are defects which everyone may perceive and the clarity of the perception cannot be blurred by acquiring more missiles, ships, divisions, or allies. All the remedial proposals for the executive branch discussed herein and the efforts suggested for rationalizing the size and structure of our armed forces are peripheral to this central problem of national security—how to prevent internal weakness from undermining both the appearance and reality of our national strength.

SOME FUTURE CHALLENGES TO PEACE

**By
Mr. Max Singer**

One of the interesting things about doing public policy studies of national security problems is the interplay between the simple and the complex. On the one hand, it is necessary to have a great sense of complexity. If you can't keep at least two contradictory ideas in your head at the same time in this business, you might as well give up. There is an infinite amount to know, and there is a lot of history, a lot of complexity.

On the other hand, it is also true that all the important ideas are very simple. And I think to do an effective job, most of the ideas you have you ought to be able to say in a few sentences. You ought to be able to say them in cocktail party or dinner party conversation and sum them up in a sentence or two. But you also have to remember the complexity.

I have been very impressed with all the people at the various panels, many of them spending nine hours discussing some of the things I am going to talk about. I decided my function here is to give the simple ideas, and in the panels the complexity will come out. I will not pretend to cover things to the depth that some of the other people will be covering them in the lengthy discussions, but I think it is useful to state some simple ideas for other people to shoot down and perhaps to come up with other simple ideas to replace them.

Chart 1

Some Future Challenges To Peace

**Old Challenges
New Challenges
Non-Challenges
Responses**

I am going to divide this talk on challenges to peace into (i) old challenges—that is, problems that are around today and which I think will be around 10 years from now—(ii) some new challenges which are not so important today but which I think will be increasingly important; (iii) non-challenges; that is, issues which many people are concerned about but which I think are overrated. And finally I will say a word or two about ideas about responding to these challenges.

Basically I am going to try to address the question: From where will the threats to the peace come in 1985? To some extent, by leaving things out, I am saying that I think they are not important threats to the peace. I certainly will not say that the allocation of time here represents which is most important. I am going to talk about things I have some thoughts about, which I

think are interesting, and also which I think are important, but in no sense am I going to try to say that the balance of this talk is the balance of dangers in 1985.

The old challenges are still there. Here are the new challenges which we will cover (Charts 2 and 3). These are the non-challenges (Chart 4). You will see that just to keep things lively I will present in some ways a slightly different point of view of some of these questions than General Taylor, in his very impressive talk this morning, and, finally, responses (Chart 5).

Chart 2

Some Future Challenges To Peace (Continuing)

1. Russia and Communism
2. Nationalism
3. Arab-Israeli Conflict
4. Nuclear Weapons
5. The Search For "Solutions"

Chart 3

Possible New Challenges (At Least Partly New)

1. Intra-Communist Conflict
(When Will The Soviet Empire Begin To Crumble?)
2. Expansionism In The Middle East
3. Integration of Japan
4. Terrorism And Lawlessness (Innocent Victims)
5. Nuclear Weapons
6. World Depression (Monetary Collapse)—Consequences
7. Others e.g. Germany Again?

Chart 4

Non-Challenges (At Least Not The Way Many People Think of Them)

1. Scarcity of Energy and Raw Materials
2. Rich-Poor Conflict
3. Over-Population

Chart 5

Responses

Peace Keeping Responsible Citizenship Morale—And Challenges To It

The first challenge—and here I am a real traditionalist—is the Cold War; that is, the conflict between the United States and the Soviet Union, which I think is going to be with us 10 years from now much as it is today.

I have here, in each of two charts (Charts 6 and 7), a left column representing what is increasingly conventional wisdom in the United States: a recognition that the Russians are cautious, not reckless; that communism is split, there is no more a monolithic Communist world; that the Russians need trade and their economy is becoming more like that of the United States; and also that the Russian Government is not very impressive and therefore not very dangerous.

Chart 6

Perspective On The Cold War

The Russians are cautious, conservative and primarily moved by national (not ideological) concerns.	but	They are willing to use force, and risk confrontation, to advance communism.
Communism is split and there are deep conflicts between communist countries.	but	A disunited Communist World can be dangerous, and communist governments usually stick together if communism anywhere is threatened.

Chart 7

Perspective On The Cold War

The Russians need trade with the west, and their economy is increasingly similar to western systems.	but	Where it is critical, the Russians will not let economic concerns override "political necessity." The political differences with the west will remain profound.
The Russian government is dull, disillusioned, and conscious of Russia's great weaknesses.	but	They have proved capable of action and are used to concealing weakness by aggressive manoeuvre and to taking advantage of opportunities.

All those things are true, but the other column is equally true. For those reasons, I feel very confident in predicting that a decade from now the Cold War will still be one of the basic conflict issues in the world (Chart 8).

Chart 8

The Russian Challenge A Decade From Now

Russia will still be the only power approximately equal to the US.

Russia will still regard the US as its *enemy*.

Communism will not be safe if major non-communist power continues to survive.

Communist political regimes will still be substantially different from others.

(Many people are willing to risk their lives over the difference.)

Conclusion: There is virtually zero chance of fundamentally different relations between the US and Russia in 10 years.

(Furthermore, Russia may continue to have major national and/or ideological ambitions outside its borders.)

That italicized word in the second line, "enemy," is very significant. In many ways it is difficult for Americans to come to grips with it. In America, hatred is regarded as a "sick" emotion; very few Americans regard it as normal or nice to have "enemies." An enemy is somebody you hate. Anything bad that happens to him—his wife gets cancer or his son is run over by a truck—makes you feel good. That means you hate that man. That idea about a relationship seems "sick" in this country. In most of the world it is not true. In most of the world people have hatreds and enemies, and it is perfectly normal and natural. That is the Soviet attitude about the United States.

I by no means want to imply that we therefore should hate them or that we have to treat Russia as an "enemy," but we do need to understand what enmity is and what the Russian attitude about the United States is. This is not only a cultural phenomenon; it is not just a matter of attitudes; it is a matter of reality. They are Communists. They are concerned at least about protecting communism, if not extending it. And as a practical matter it is true that communism is not safe so long as American and Western power exists. They think of communism as vulnerable, as being in danger if something happened. And if communism were the only power in the world, it wouldn't matter what happened within their borders they could take care of it. So long as there is strength outside, they have to worry. That is the minimum reason why they have to regard us as an enemy. The last line indicates that they also have ambitions which can bring us into conflict with them at any point.

I want to make it very clear that this does not say we are going to have a war with Russia, that we cannot live with them, that we should not negotiate with them, that we cannot have arms control agreements with them. We are on the same planet. Neither of us is in a position to do away with or profoundly change the other. So we are going to continue to live together in what could be called a Cold War, depending on what our attitudes are.

Chart 9

Nationalism

Current and recent examples: Ireland, Belgium, Canada, Nigeria, Bangladesh, Congo, Iraq, Palestine, Yugoslavia

DEFINITION: Conflict arising out of the imperfect fit between nations (peoples) and countries.

There is an infinite supply of justified national grievances.

Ten years from now, somewhere the circumstances will be such that some of these grievances lead to conflict.

This conflict may interact more or less with other international issues.

We need:

1. To develop traditions and mechanisms for localizing national conflicts.
2. To provide limited efforts to help settle national conflicts.
3. Perhaps to develop an overall strategy (set of attitudes) for responding to sub-nationalism. Current strategy is generally to be unsympathetic to secession and to new nationalism.

The next challenge is nationalism (Chart 9). I was going to call this sub-nationalism because in many cases today it is a matter of groups that are less than country size attempting to divide countries. Conflict based on nationalism is everywhere. It is in the modern, advanced countries, not just in Africa and Asia. Basically it is true and, I guess, will always be true that there is an imperfect fit between nations—that is, people who speak a common language and have a common culture—and the boundaries of countries. That imperfect fit tends to produce disputes, and a particularly bitter kind of dispute.

As I note on the Chart, there is an infinite supply of justified national grievances. A national grievance can always lead to conflict. There is an infinite supply of potential ones, and I would suppose that certainly every few years, for as far as we can look into the future, one or the other of these disputes will be leading to a conflict of some kind—maybe limited, like in Ireland; maybe warlike, as in Bangladesh or Nigeria. There seems to be no answer to this. It is something we have to face up to for a long time.

There is a major difference, though, in whether or not these essentially local issues become international, or whether they become wound up with the Cold War or with other issues that involve the rest of us who are not directly concerned. We will discuss, in a second, one particular

such conflict which may hold the world's record in terms of involving everybody else besides themselves.

But I think that increasingly what the world is going to need to recognize is that while it cannot do away with these local conflicts, it has to find a way to limit them to the areas and to the peoples concerned and to prevent these people from embroiling everybody else in their conflicts. Hopefully we can do better than that. Hopefully we can perhaps develop some techniques, some measures and some institutions which can be helpful in settling these conflicts. We must always try.

I would also hope that we could go even a little bit further and perhaps set some limits on what can happen internally. For example, there is the genocide convention, and while it has not been effective in parts of Africa where there have been essentially genocides in recent years, I would hope that the world could learn to set some limits on internal national conflicts.

The current strategy, which is unspoken, is very important and may well be the right strategy. It is basically a rule of sitting on new nationalisms. That is, if a nationalism, a national identity, does not have a country, the attitude of the world is it is not entitled to one, it should keep quiet. The country which contains it is entitled to suppress it. And I think everyone's unspoken attitude is that this is the best technique because we all have the problem, and if we let it get out of hand anywhere, our own national minorities will cause us trouble. That may very well be a prudent strategy.

One of the things you find if you look at one of these nationalities is that each nationality has subnationalities, and each subnationality has sub-subnationalities. And if you get into a process of breaking up countries and groups, it seems to be able to go on almost infinitely.

Let us look at one particular one: the Arab-Israeli conflict (Chart 10). First let us look at the issues of how likely it is to continue or if we are in a major process of peacemaking. I believe that although there is a good chance that Sadat of Egypt has a genuine interest in peace now, that he genuinely does believe that the interests of his country require turning inward and turning to economic development and to making at least temporary peace, nevertheless the basic factors argue that there will be conflict—essentially intermittent war—in that area for generations. Let me describe some of those factors.

Chart 10

Arab-Israeli Conflict

- I. Prospects For Continuance
- II. Who Will Be Winning?
 - Israeli Morale
 - Russians
 - Oil
 - Oil Money
 - Arab Unity
 - U.S.
 - Iran, Etc.
- III. Relevance To World Peace
 - US/SU Conflict
 - Oil
 - Peace Keeping Precedents
 - International Terrorism
 - Spread of Nuclear Weapons

First of all there is the tremendous asymmetry between the two sides, not so much the asymmetry of numbers—the hundred million Arabs against the three million Israelis, although that is part of it. The basic factor is that the Israelis can lose only once—that is, completely lose. If the Arabs come in and take over Israel can be destroyed. There is no possibility of the Arab nation being destroyed. That means the Arabs can stop the war any time they want and wait and come back a decade later, a generation later, two generations later, a century later. This is related to the basic Arab attitude.

I think it is true of many Arabs, if not the absolutely standard attitude, that the war against Israel is a continuation of the war against Europe that has gone on for centuries. As Westerners, we have forgotten the centuries of war with the Turks, with the Moslem. A war we won. And we won it so completely we have forgotten about it and don't care about it any more. But they lost it. They remember their past glories. They feel invaded by a force which is essentially a replay for them of the crusaders who were in the Middle East for close to two centuries and then were gone, were thrown out. Israel, for them is another similar invasion of outsiders. They are perfectly content to wait at least a century, if they have to, and to throw them out, although they would obviously like to do it more quickly.

Another asymmetry is that the existence of Israel represents, with current Arab thinking, a defeat for the Arab nation. That is, the existence of Israel is something that represents a wrong or a problem or an insult to them, where, obviously, of course, the opposite is not true.

Finally, in terms of predicting the continuance of this conflict, there is the fact that the Arab nation includes not only the countries directly concerned—Jordan, Syria and Egypt, as well as the Palestinians, but also the other Arab powers, Iraq, Libya, Algeria, Saudi Arabia, and so on. Many of those countries or many of the groups within those countries have an interest in war and not much interest in peace. So Sadat does not have a free hand. And while he may temporarily be able to move the Arabs toward peace, it seems to me that it can only be a temporary thing unless things change. So I would say with some confidence that in 1985 there will be an Arab-Israeli conflict with essentially the character of the current one.

The next question is who will be winning. The underlying factor which I think will continue for some time is continued Israeli military superiority. They really started off this last war quite badly. They made many mistakes. Within a few days they learned a number of critical lessons. I think, while it is not entirely clear, that they had won a very decisive victory on the ground at the time the war stopped. Today they are capable of winning another war if it does start, again at a very great cost in human life for them as well as a cost for the Arabs.

The basic fact to remember in understanding that situation is the fact that military superiority is on the part of the Israelis. However, this is a perfect example of a conflict which is not purely local. And if you look on the chart I have a long list of factors which will determine who is going to be winning that conflict or who is going to be ahead in it. The overwhelming one is Israeli morale. Unless the Israelis have a determination to accept their lot, that there is no choice, to be prepared to fight on through generations, they are not going to be able to maintain themselves.

The second major issue for them is the Russians. The Russians have invested billions of dollars in arming the Arabs. They seem to have a major interest in the area. While today it looks as if that is going to continue, I think that one cannot be confident that 10 years from now the Russians will still be interested in the area. They may be or they may not be. If they are not, it would make a major change.

Today the oil weapon is important and is another reason why I think it will be extremely difficult to settle the conflict. That is, the Arabs have inflated expectations because of their inflated beliefs about the effectiveness of the oil weapon. And so long as the oil weapon looks potent, it looks like it is going to be hard to make a deal with them. I think that in 10 years from now the Arab oil weapon—that is, the power to withhold oil—is likely to look a lot less important, but that depends upon the energy industries around the world. Maybe it will be 20 years before Arab oil becomes much less important.

But even after oil becomes less important, oil money will continue to be important. That is, the Arab nations will accumulate \$100 billion, \$200 billion of capital which they can be expected to keep for a long time—and that is a lot of money. What this means for Israel is that if the rich Arab nations continue to be united or reasonably united with the poor Arab nations, Israel is going to have well-financed terrorist groups against it and well-financed armies. Of course, there is nothing that says that the rich countries—Saudi Arabia, Libya, Kuwait, and so forth—will continue to pay for armies for Egypt and Syria.

I think there is some reason for believing that Arab unity is not at its peak and that 10 years from now it is likely that the Arabs will be much less united than they are today. That would be an important factor in terms of Israeli security.

The Israelis are now dependent for financial aid as well as for military assistance on the United States. If the United States radically changes its policy, the position of Israel will become weaker.

The interesting thing to the United States, in our own interest apart from our interest in Israel, about the Arab-Israeli conflict is that it is not just a conflict involving the peoples of that region, but it is one that has brought in the world in a number of ways. First of all, it has activated, in one of the strongest ways we have seen in recent years, the American-Soviet conflict. The Soviets have come in on one side. The whole process of building up the Arab-Israeli conflict, from essentially a primitive matter of rifles and hand grenades to the most modern weapons in very large quantity, started with the Soviet arming of Egypt and, I guess, Syria in the fifties. Each round has seen the Soviets putting in more and more money and first France and then the United States responding by trying to keep Israel more or less equal. In the last war we also saw the United States having to call a strategic alert in order to prevent a Soviet intervention, or to best the Soviet threat to put its troops in to stop the Israelis.

The Arab-Israeli conflict also, as you know, activated the oil embargo which resulted in the tremendous runup in oil prices. I think, contrary to what many people say, the oil weapon was used for political reasons. That is, the key issue was that Faisal acted as a devout Moslem and Arab interested in getting Israel out of Jerusalem, and that was the essential triggering event that led him to use his oil power in a way which ultimately turned out to be of great profit to all Arab states

and of great cost to the rest of the world as well as of great benefit to the Soviet Union. (Changes in the supply of and demand for oil over the last few years were also necessary for the oil weapon to be used as it was.)

As one of the most prominent local disputes going on in the world, the Arab-Israeli dispute has also been important in terms of peacekeeping precedents. The basic precedent set in U.N. Resolution 242 I personally think is a great mistake from a peacekeeping point of view. That was the rule that nobody is allowed to keep any territory acquired in a war, even a war started by the country that lost the territory. I personally feel that this is an anti-peace precedent and that it would be a better precedent for peace to hold that a country that is aggressive, that starts a war or even does the kind of provocative acts that Egypt did to force Israel to start the war in 1967, if it loses, ought not to have an absolute claim to get its property back because, obviously, such a right in effect subsidizes aggression.

Next, as all of you know—international terrorism, by the Palestinians has grown out of this dispute; not only against Israel but against Israelis anywhere and against other people all over the world. It hasn't been kept in its local area; it has spread all around the world.

Finally, particularly in recent weeks, we have been increasingly confronted with the specter of nuclear weapons coming into a local conflict. I want to talk about this separately in a later part of the talk, but I think there is a good chance that we can say that the Arab-Israeli conflict may turn out to be one of the key factors in the wide spread of nuclear weapons around the world; maybe not. Maybe it would have happened anyhow, or maybe it will not happen. But as of today, it looks as if the Arab-Israel dispute will be one of the key influences in what is a very evil, sad process.

Let us turn to the nuclear weapon issue, the familiar one.

Chart 11

Nuclear Weapons

The US/SU Problem
Boredom Inappropriate
Deterrence—Only vs. Deterrence + Insurance
(Counterforce Is A Red Herring)
Psychological vs. Technical Failure Of Deterrence
The Possible Significance of Accuracy (No Hard Targets)
Arms Control

Numbers vs. Aimpoints
The Possibility Of A Military Nuclear War

Who Will Be Ahead In 1985?

Some 15 years ago, when I first got involved in the study of nuclear weapons, there were people who said that it was wrong to think about nuclear weapons and nuclear war. My feeling at that time was that any country that has the ability on a few minutes' notice to kill a hundred million people and has weapons that may be activated any minute, has the responsibility to think about how they may be used and to be concerned with preventing their being used or to minimize the number of people being killed if they are used. Now, 15 years later, the problem is not that people are challenging our right to think about it but people are losing interest in thinking about it. The problem has been with us for 15 years. It seems dull. There are no new ideas around, as Tom Schelling says. It seems that the same old problems cannot still be important.

My feeling is, the weapons are still there. They are there in greater numbers. They still represent the same threat to us and to other people around the world. We have a responsibility to keep on thinking about them and to be concerned. I have to admit that I myself have not been thinking about them as much as I used to, which is perhaps a good thing. You have to have new people brought into it, but the country as a whole cannot give up on this issue.

The basic issue for the future is still summarized in the two choices. A "deterrence only" posture, the policy recommended by General Taylor, having enough force to be able to retaliate against the Soviet Union if they attack us, but to display essentially no interest in what would happen if the war actually came, a complete confidence that war can be prevented, a belief in the necessity that it must be prevented. The other policy is "deterrence plus insurance." By that we mean a policy which, while focused mainly on trying to deter war, is also interested in insurance against the possibility that war, despite our best efforts, might occur.

It was traditional to think that these two policies (deterrence-only and deterrence-plus insurance) were in conflict, that the insurance, the thinking about the possibility of war, preparing for it, reduced the deterrence. I believe that it is just the opposite. I believe that insurance against the possibility of war occurring, taking that possibility seriously, worrying not only about how war would start but how it would finish, what you would do in a war, reduces the chance of war. The reason becomes clear when you think about the question of how deterrence might fail.

One way in which deterrence theoretically might fail is if in a crisis a Soviet general could come into the Politburo and say, "We have discovered that the American forces are vulnerable, we can attack them and prevent them from retaliating." I do not think that a Russian Politburo would ever decide to accept such a recommendation because basically the Russian political leadership does not believe that kind of technical advice. They don't believe in it. They are not technicians. They believe in the dominance of the political over the technical. They know that things always go wrong. They are right.

On the other hand, what I think is a possibility is that a Russian leadership in a crisis situation, having met the American President, having made careful political probes, could come to the conclusion that he is so overwhelmed by an apocalyptic picture of the nature of nuclear war, so completely frightened of nuclear war, so completely unprepared for it, that he could be bluffed. They do believe in bluffing people. They do believe in one group's ability to dominate another. I am not saying they are going to be eager to do that, but in a crisis I think that is a more imaginable way for deterrence to fail than the technical failure of deterrence. So I think that the apocalyptic

view of nuclear war, saying we can't think about it, it is too horrible to think about, it is the end of the world, reduces deterrence and is therefore dangerous. It also offends my prudent sense that we have to insure to the best of our ability against any possibility.

On the arms control issue, the long-term future of the arms race and the nuclear problem, there are two possible directions, neither of which I would be very optimistic about. One is the arms control point of view which tries to reduce the number of weapons. My feeling that the basic weakness of that is the number of people killed in a war is not primarily a function of how many weapons there are or even how many weapons are fired. It is primarily a function of what the weapons are fired at. Ten weapons, fired at the big cities, would kill many more people than a thousand weapons, small weapons, fired at military targets. Since arms control seems to reduce the number of weapons but perhaps increase the likelihood that if they are fired they will be fired at cities, it seems to me not to be a useful solution. It can never reduce the weapons to the point at which they are not dangerous, to which there are really too few to hurt anybody, because even 10 weapons would produce massive death.

The other direction, which I must admit I cannot really see the way clear to, but seems to me to offer some hope, is that perhaps we can restore the possibility, that nuclear war might be a military war. That is, as wars always were until 1945, wars fought primarily between armies; where force is exerted against an enemy army until victory or until a new balance of power is achieved which leads to a settlement.

It seems to me that if somehow or other it would be possible to get the military on both sides to think that the sort of natural way, or the first way, to start a war is to fight against the forces on the other side, there would be some possibility of stopping it before it came to attacks on civilians, and that would be a very good thing.

The basic new element in the strategic picture is the change in accuracy, which fits in with this idea of perhaps heading toward a military war. It is a real revolution which is still going on. When the missiles first came in an accuracy of two miles was regarded as good. That meant to destroy a hard target you had to have a gigantic weapon. Accuracies are now moving down to a tenth of a mile. It may be possible to put a cruise missile down a well, which is less than a hundred feet, which means that a few hundred pounds of warhead, producing damage only in the immediate vicinity, becomes the preferred military weapon. I think this is a hopeful sign in the direction of making possible military nuclear wars instead of civilian nuclear wars.

Chart 12

To Destroy a Hard Target

CEP Required	Warhead Size	Warhead Weight
2 miles	60 MT+	10 tons
0.5 "	4 MT	2 tons
0.1 "	30 KT	300 lbs
100 ft.	1 KT	300 lbs

(Numbers approximate, only to give sense to scale)

The final old challenge to peace is perhaps idiosyncratic (Chart 13). I believe that the search for solutions—that is, not dealing with problems, living with problems, working with problems, but trying to solve them permanently, absolutely—is one of the great dangers to the world. I believe it has been largely a negative force in the past. I think human nature is not changing, and people's hopes for complete solutions will continue and will continue to be a major threat. I want to make clear I am not saying the U.N. is a terrible thing. I am saying that there are important dangers in putting too many hopes in the U.N. and being unrealistic about it. The same is true about disarmament and about detente. Communism, of course, is the classic example of a pernicious force based upon human hopes to solve human problems, leading to great troubles for everybody.

Chart 13

The Search For "Solutions"

The U.N.
World Federalism
Disarmament
Detente
Communism
Third World
U.S. Isolationism

Now we come to possible new challenges to peace in the eighties (Chart 14).

Chart 14

Possible New Challenges (At Least Partly New)

1. Intra-Communist Conflict
(When will the Soviet Empire begin to crumble)
2. Expansionism in the middle east
3. Integration of Japan
4. Terrorism and lawlessness (Innocent victims)
5. Nuclear Weapons
6. World depression, monetary collapse & consequences
7. Others e.g. Germany Again?

The Russia—China conflict is not new, but I would like to open it up as a possibility (Chart 15). I am not saying by 1985 any of this will happen; that the Communist empire will crumble, there will be major conflict either between Russia and China or conflict on the order of Hungary and Czechoslovakia. I do think it is important in understanding the world to recognize the vulnerability and the instability of the Communist world. It is an empire, and I am referring now both to Russia itself, the minority peoples within Russia, and also the Eastern European territories.

Chart 15

Conflict Within The Communist World

1. Russia - China
2. Yugoslavia
3. 1956, 1968, 19--
4. Life expectancy of Empires in the 20th century?

I happen to believe, although I think it is a matter of great uncertainty, that an empire in the modern world is essentially unreliable and unstable and at any point can cause great conflict. I think that one of the great potential dangers from the Communist world is in a time of internal crisis when they are forced to act drastically, and dangerously for us. I suppose I am like other mortals, and if I do not see anything happening now, it is hard for me to believe it will happen soon. So I would say that the chances are less than even that this will happen within the next 10 years, but I think it ought to be kept in mind and could happen at any point. Certainly most of us were surprised in the past.

Chart 16

"War" for "Profit"

1. Rich, Weak, Empty States
2. Persian History and Iranian Ambitions
3. Or Is Expansionism (without Revanchism) Dead?

When I was in school we learned that one of the basic sources of conflict was what were called then "power vacuums." (Chart 16). I think that may still be true, although probably not as true as we used to think. A classic power vacuum exists in the Persian Gulf, and it seems to me that there is a good possibility within the next 10 years that there will be essentially some kind of attempt to grab some of those rich, weak states.

I think it is very easy to exaggerate the possibility that the Shah of Iran sees himself as a Cyrus the Second, envisaging himself restoring the glories of the Persian empire in the modern day. It is very hard to judge that, but it seems to me that it is not entirely to be ruled out as a possibility. He certainly is developing a power base that would permit him to. I think it is certainly true that the sense of split, even enmity, between Arabs and Iranians still exists on both sides. Certainly this was recognized in the recent communique from Libya. The Iraqis feel it.

The natural American attitude is that Iranian pursuit of ambitions in the Persian Gulf would be destabilizing, and that it is our responsibility to prevent them. It is not at all clear that that natural response is the correct response. While today we are in a period of, let us say, detente with the Arab states, I think that there is ample reason, cultural and geopolitical, to think the United States has to have some concern with the Arabs, and the building up of a balancing force against the Arabs in the Middle East by Iran would be in our national interest. There is also some reason to think that it would be better for us and for the world if at least some more of the Persian Gulf oil

was in the hands of Iran, which spends the oil money it makes developing its country and doesn't sit on it. So it is not at all clear that if Iran does have expansionist ideas it would be bad for the United States. On the other hand, it isn't clear that they do or that they could do anything about it, but it is a possibility to take into consideration.

I want to be very careful when I talk about Japan (Chart 17).

Chart 17

Japan and The World (Rank in Japanese thought)

1. Wealth Without Confidence?
2. Insults Without Response?
3. Power Change Without Conflict?
4. When?

I think that this is perhaps one of the two or three biggest issues that we have to face. I don't think there is anything in Japan today that we have to be afraid of. I don't think it is necessarily true that Japan's development and what she does is going to be bad for us or for the world. I think, however, that it is a profound uncertainty, that it contains tremendous possibilities for danger and for harm, and that it ought to be at the very center of our thinking about U.S. policy.

Basically, in economic trends, by 1985 Japan will probably be something like three times as big as England, almost as big as the Big Four European Countries together, almost as big as the Soviet Union. (I am speaking now in GNP terms.) It will be the third power in the world in terms of basic capability (Chart 18).

Chart 18

An Estimate of Japan's GNP Position In 1985

Japan May Be 330% of England
Japan May Be 200% of W. Germany
Japan May Be 86% of The Soviet Union
Japan May Be 66% of European Big Four
(UK, France, W. Ger., Italy)
Japan May Be 44% of the United States
Japan May Be 11% of The World

There is the problem of how the world adjusts to this new power. There are a number of different kinds of problems about it and reasons to think it may not be an easy process. First of all, there is the historical process. In some ways, one of the last great powers to come into the world was Germany, and it took essentially a century before the world absorbed the emergence of Germany.

Another reason to be concerned is that it is clear that Japan is going to get into at least small-scale conflict situations around Asia because it is going to have a policy of investing and using the cheap labor in the foreign countries, with its capital, technology and skill as the basic mechanism of development in the next stage. And there is no way in which that can be free of conflict and problems. You cannot have that kind of foreign investment between peoples, even in the best of circumstances, without conflict. The Japanese are bound to be insulted.

The Japanese have as one of the very basic organizing concepts of their personality the idea of rank in relationships, that one takes pleasure in paying deference to those who are superior and one takes pleasure in receiving deference from those who are inferior. This is one of the rather essential parts of their personality and their life. I don't see Englishmen, Germans and Frenchmen paying deference to Japanese in the near future in the way that the Japanese will think they deserve, much less Thais, Indians and the other people of the region. It is another cause of conflict, a potential cause of conflict.

Finally, I think the Japanese have had a continuing dynamic of back-and-forth between the old Japan and new Japan, between old Japan and assimilation. I think that they are not yet resolved in their new personality. Their way of life, the whole nature of the country has changed rapidly in past years. It is still changing. It isn't clear that they have absorbed this and that they have a solid government personality. That means that at any point there can be a kind of eruption growing out of their own national development.

When any of these things happen, there is this tremendous potential power that comes basically from the money in addition to their social discipline and tremendous skills, so there is a real, almost unlimited, potential danger there.

What should we do about it?

Some people say, when you give them this argument, or they make the argument themselves, that we have to suppress Japan, that we should keep them disarmed, that we should keep them dependent upon us, that we should see they do not develop as a strong, dangerous country. I do not think the United States is smart enough or strong enough to do that. I think that when Japan spreads out, grows up, if you will, they have to do it, and there is nothing we can do to stop it. We may be able to influence it, but we cannot stop it; we cannot dominate it.

My own feeling is that we can do basically nothing. We should, however, first of all, not encourage them either to arm, to rearm, or to stay unarmed. It should be their decision. If they want a free ride on the American taxpayer, I think that is fine. The longer they don't arm the better, although I don't think we should try to hold them back. We should not be involved in the process by which they renounce their past, their current low posture. The process is likely to be strange and bitter, and anybody who is attached to it is likely to become an enemy. So I think we should have a very stand back, let-them-do-their-own-thing attitude and not try to influence it in any way.

That is a little bit too strong. I think it is important for the United States to stay a major power—naval, military, political—in Asia so it is easy for the Japanese to go along and in effect not be dragged into exercising their power in Asia.

I think the United States should pay them very great deference. The United States should treat them as a great power from today on. For example, I think the United States ought to try to get them a permanent seat on the U.N. Security Council. I think the United States should treat them as a nuclear power without their getting nuclear weapons. There should not be a conference of the nuclear powers which excludes Japan. I think the United States should be immensely concerned with Japanese attitudes and reactions to everything we do. I think the United States ought to be more concerned with Japan than with China, partly because I think Japan is going to be more powerful and important than China, partly because I think there are more possibilities facing Japan. China is more locked into its positions than Japan. Japan can go any way, and so I think we ought to focus our Asia policy on Japan with a very *status quo*, nondirective attitude.

The next issue is terrorism and lawlessness (Chart 19).

Chart 19

Terrorism and Lawlessness

Life is Becoming "Sacred" In Larger Parts Of The World
Result:—Vulnerability To Those To Whom It Is Not
Expansion Potential of Terrorism?

This is probably more a matter of annoyance and unpleasantness than a major issue. The number of people who can be killed by this kind of thing is, on a worldwide basis, in the low thousands per year. I think it is very likely that it will increase but not become a major issue.

On the other hand, I have to admit I am frightened by it. It seems to me that there may be a kind of dynamic of terrorism escalating, of having local implications deriving from foreign terrorism. Certainly the technical capabilities of terrorists are increasing. Not only is there the possibility of their getting nuclear weapons but other kinds of "weapons of mass destruction," as the Russians call them. I think terrorism is more frightening than I am able to justify by analysis.

The one common misunderstanding, I think, is the view that terrorism is a function of injustice and the way to prevent terrorism is to deal with the injustices that the terrorists are responding to. I think terrorism is not a function of injustice and that there is a very quick pathway from the politically motivated terrorist who is responding or is alleged to respond to a national political need, leading to a Robin Hood and, finally, to an Al Capone. The borderlines between those things are very narrow. Most terrorists are essentially young personality types who are always available who get supported by the society and by people who provoke them and have to be dealt with very toughly if the society is going to be protected from them.

Previously I talked about the big nuclear weapon problem; now I would like to talk for a minute about the other nuclear weapon problem (Chart 20).

Chart 20

Other Nuclear Weapon Problems

1. Dealing With Non-Russian Nuclear Weapons
 - Probably Still Easy in 1985
 - But there is *some possibility* that there will be more than 6 countries with nuclear weapons by then
2. Dealing with the Choice Between "Nuclear and Non-nuclear Worlds" for the year 2000
 - The last fork in the road could be passed by 1985

I think there probably will not be many more nuclear countries in the world in 1985. There is some possibility there will be more than six, but I think it is less likely than not. I think, however, in 1985 the problem of preventing a nuclear world in the year 2000 is going to look a lot worse than it does today. This question of a nuclear world or a non-nuclear world is one of the few issues where you really want to take a Year 2000 perspective. One wants to say, "In the year 2000, there might be a nuclear world or a non-nuclear world." (Chart 21)

Chart 21

A Pair of Year 2000 Alternatives

Nuclear World

1. 50-100 Owners of Nuclear Weapons
2. 10-20,000 Nuclear Weapons
3. Many Actively Potential Owners
4. Potential Nuclear Use Central to International Politics (Both Regional and General)

Non-Nuclear World

1. 3-7 Owners of Nuclear Weapons
2. 10-20,000 Nuclear Weapons
3. Each Nuclear Force "Protects" At Least 200,000,000 People
4. Expectation That Nuclear Ownership Is Not Going To Spread (At Least Not Much Or Not Fast)
5. Nuclear Weapons Understood To Be Only For Deterrence of Other Nuclear Weapons
6. Most International Politics Not Influenced Directly by Nuclear Weapons

You will notice that my non-nuclear world has a lot of nuclear weapons, but it is still a non-nuclear world because of the last few lines which say that nuclear weapons are not in ordinary international politics; people do not think they will spread to more countries; they do not

influence very much; they are there only in the background. That is immensely different from the nuclear world, even though the nuclear world has the same number of weapons, or almost the same number of weapons.

This is a sense of what that nuclear world is like, medium spread or large spread. (Chart 22)

Chart 22

Medium Spread

Number of Countries	Types of Forces	Number of Weapons
3*	Large Efficient Nuclear Forces	6,000
3	Sizable Efficient Nuclear Forces	2,000
8	Small Efficient Nuclear Forces	2,000
6	Substantial But Poor Forces	2,000
<u>20</u>	Small, Poor "Forces"	<u>400</u>
40		12,400

Large Spread

40	40 Forces Described Above	18,000
10	More Small, Efficient Forces	2,000
<u>40</u>	More Small, Poor "Forces"	<u>1,000</u>
90		16,000

Add weapons in the hands of groups other than nations? ? ?

Again the difference in the number of nuclear weapons is not immense, but the idea of 90 nuclear countries, which is not impossible for the year 2000, and an unknown number of weapons in the hands of non-national groups, I find truly frightening. It is perhaps one way toward world government, but I do not find it a pleasant way.

Chart 23

Some Hypotheses

1. It is still possible that we will have a "Non-Nuclear World" in 2000.
2. The cost and difficulty of making nuclear weapons will not be sufficient to prevent a "Nuclear World."
3. We will not have a "Non-Nuclear World" unless the U.S. changes its policies.
4. Possible policy changes in other countries probably are needed too.

I would argue that it is still possible that a nuclear world can be prevented, not because of the difficulty of building nuclear weapons or the expense, which is getting less and less, but essentially by the control of the political situation so that nuclear weapons are not desirable. I think that is the key issue. I think that requires a change in American policy and the policies of other countries as well (Chart 23).

Before we address that question, a key issue is: In whose interest is it that it be a nuclear world? (Chart 24)

Chart 24

In Whose Interest Is A "Nuclear World"

1. U.S. or S.U.?
2. France, Germany, UK, Japan?
3. China, India, Brazil?
4. Israel, South Africa?
5. Egypt, Syria, Jordan, Saudia Arabia, Iraq, Libya, Algeria, Lebanon?
6. Iran, Venezuela?
7. A Small Nation "Hitler"?
8. Kuwait?

That is a question that is not normally asked. The question that usually comes up is: Should we (Egypt) get nuclear weapons? Should we (Israel) get nuclear weapons? Should we (India) get nuclear weapons? That is the way countries ask the question, but there is a different question: For whom would it be good for there to be a nuclear world?

The events leading up to the Non-Proliferation Treaty in the early sixties were profoundly misleading. The picture that developed then was that the United States and the Soviet Union, the great nuclear powers, wanted to prevent everybody else from getting nuclear weapons. In other words, it was in the interest of the great powers to prevent the spread of nuclear weapons, and, therefore, by implication it was in the interest of the small powers to get nuclear weapons. That is profoundly misleading.

I think the basic way to think of this is to think of a nuclear world as a jungle contrasted to the relative peace of the meadow. The lions, tigers and elephants can live all right in the jungle, they may perhaps prefer the peace of the meadow, but they all are equipped to survive in the jungle. It is the rabbits, the antelope, the mice and so fourth who want to keep the world from turning into a jungle, which is what a nuclear world is. It is in the interest of the small countries, the non-nuclear countries, to keep it a non-nuclear world.

If you look at the sample groups on Chart 24, the people for whom nuclear weapons might be useful are a small nation Hitler, because nuclear weapons are most profoundly the natural weapon for the bluffer, the irresponsible, the aggressor, the irrational, or the person who can seem to be irrational, and that would give him real power. It is in his interest to have a nuclear world. But most countries are not Hitlers, even most of the time, and a nuclear world is not in anybody's interest.

The problem is how to get this interest in having a non-nuclear world to dominate the situation against the particular interest of the countries looking at their immediate situation and wanting to get nuclear weapons. Let us take an example (Chart 25).

Chart 25

The Middle East As An Example

1. Is it in Sadat's interest for Egypt to have nuclear weapons?
2. Who in Egypt will hold the weapons?
3. Will Libya also get nuclear weapons? (Can Quadafi turn \$2 billion into a nuclear weapon?)
4. Will Syria also get nuclear weapons?
5. In an area as unstable—internally and externally—as the Middle East, can anyone be sure it is in his interest to have nuclear weapons introduced? (unless hatred of Israel overwhelms all other concerns)

Ask the question: Is it in Sadat's interest to get nuclear weapons, for Egypt to have nuclear weapons? I think the natural answer for him and for most people is to say yes, of course he would like to get nuclear weapons if he could. I think that is not really his interest. In the first place there is the question of who will hold the nuclear weapons.

He is not going to keep them in his bedroom. He now has to worry about his army, his air force, his secret police, his palace guards, and his colleagues. He would also have to worry about the people who have hold of his nuclear weapons. They represent an additional force. Furthermore, if he gets nuclear weapons, he has to take into account the possibility that Libya will get nuclear weapons, Syria will get nuclear weapons, and I think he would regard that as not useful for Egyptian national interests as well as for world peace.

I think he has a real interest in keeping nuclear weapons out of the Middle East. I think he has an interest in taking a major initiative for peace in the Middle East. and I think he is more likely to be able successfully to negotiate an arms agreement with Israel to keep nuclear weapons out of the Middle East than he is to have a peace settlement. So perhaps keeping nuclear weapons out is something where he can have a major international success in the Middle East.

Finally, many Arabs believe that Israel already has nuclear weapons, and if Sadat can seem to turn that clock back and can get a firm statement from Israel that they do not have nuclear weapons and a statement from the United States that they will cease all aid to Israel if Israel gets nuclear weapons, that would seem, perhaps, like a major victory to Sadat.

It seems to me that policy represents an alternative to what the United States actually did in offering a reactor to Sadat (Charts 26 – 29). The United States could help Sadat with such an initiative. I think we could succeed in keeping France and Canada from coming in and giving nuclear weapons or reactors to the Middle East. I think if Sadat negotiated such an agreement among the Middle Eastern powers, there would be a good chance that nuclear weapons and nuclear reactors would be kept out of the Middle East for some time to come, to everybody's benefit.

Chart 26

Could The U.S. Have Chosen A Different Course?

1. To offer Sadat to refuse to sell to Israel the power reactor Israel was planning to buy.
2. To assist in a Sadat initiative designed to keep nuclear weapons out of the Middle East. (And power reactors because they make bombs easier.)
3. e.g., to try to get France and Canada to accept such a Sadat proposal. (S.U. probably no problem.)
4. To promise to cut off aid to Israel if it is the first country in the Middle East to get nuclear weapons.
5. Incidentally making the point that since oil will be cheap and plentiful in the Middle East they don't need nuclear power.

Chart 27

Why Should Egypt Get A Large Power Reactor

1. To meet its energy needs? Nonsense.
2. To help economic development? Almost certainly counter-productive.
3. To look modern—to gain prestige (But not much if other Arab States have them too)
4. To improve ability to get nuclear weapons

Chart 28

Why Should The U.S. Encourage the Spread Of Nuclear Technology In the Middle East?

1. Because it is going to happen anyway.
2. To strengthen its relationship with Egypt.
3. To increase its leverage to move toward peace between Israel and the Arabs.
4. Because reactors from the U.S. will be better controlled than reactors from France or Russia. (But does a U.S. reactor in Egypt increase the chance of other reactors in other countries?)
5. Because the U.S. wants to enhance favorable attitudes towards nuclear energy

Chart 29

The 1985 Nuclear Problem In The Middle East

1. Probably at least three and perhaps 6 large power reactors will be installed producing large quantities of plutonium.
2. Probably at least 3 countries will have active programs to try to build or buy nuclear weapons.
3. Israel will be assumed to have nuclear bombs.
4. Countries with U.S. reactors will be accused of violations of control procedures and the U.S. will have to decide how to respond.
5. The prospect will be that soon the U.S. will have to respond to the introduction of nuclear weapons into the Middle East.

Let's now turn to what I think are the non-challenges to peace in the eighties (Chart 30).

Chart 30

Non-Challenges (At Least Not the Way Many People Think of Them)

1. Scarcity of Energy and Raw Materials
2. Rich-Poor Conflict
3. Over-Population

The idea that the world is running out of its raw materials, that a large part of the history of the next generation or two is going to be conflict between the "haves" and the "have-nots" fighting over scarce supplies, is very widespread. It has been expressed in this Conference by a number of people and expressed outside by many eminent and wise people. I cannot, obviously, in a few minutes, settle the question. But, let me give my understanding of the situation and one view of how I came to it.

Hudson Institute has begun a study taking the extreme case, that in the year 2100 there are 15 billion people in the world instead of the less than four that are here today. Further suppose those people are relatively rich. That is, on the average they have an income of \$15,000 per capita; that is, the whole world at that time is on the average three times as rich as the United States is today. Maximizing the problem of resources and the problem of pollution in that world—not predicting it but asking could that world live, would there be enough raw materials, enough energy, enough places to put the pollution, enough room for the people, and so forth?

The preliminary answers are yes. That world is perfectly feasible, and it even can be shown to be feasible with essentially what is known today about resources and the technology that we have in sight today, without the benefits of future discoveries.

Of course the world is not entirely without problems. The problem of disposing of the waste heat from reactors, if reactors were the sole source of energy, is one that is not yet solved. Undoubtedly, there are other problems that we cannot solve today. But basically I would say the more likely prediction is that there are plenty of resources at modest prices even for a world population which has doubled twice from what it is today and which lives very well indeed. There would be all the energy wanted at affordable prices, all the structural material. We could get and use these resources in an environment that is cleaner than the environment that we have today. Basically most of our efforts would not be going to supplying raw materials, any more than today most of our efforts are going to raising food.

Let me suggest what it is that I think misleads many people. This is the question of two views of resources (Chart 31).

Chart 31

Two Views of the Nature of Resources

Like Land, Finite
(Fruit Bowl Metaphor)

Technology And Capital
(Muscle Metaphor)

One view, on the left hand, sees resources as a very physical thing. It is a very natural view that resources are things like oil and steel, that you can put your hands on. Metaphorically it is like fruit in a bowl. It may be a very big bowl, there may be a great deal of fruit in it, but you take it out, and when it's empty, it is all gone: there is no more. That is the basic view. That view must lead to pessimism, must lead to a sense that we are heading toward disaster.

Let me offer an alternative view, which is also incomplete, but which I think helps to understand why many of us feel that there are plenty of resources. This sees resources not as tangible, physical things but as technology and capital. The analogy is to a muscle. The more you use the muscle the more it grows, the stronger it is. There is no sense in which when you use the muscle you use it up.

It is interesting that oil can be used to illustrate both of these characteristics of resources. Take the Persian Gulf oil, which costs only 10 cent to get out of the ground. That is like fruit in a bowl. It is in there. It is a wonderful discovery. It is of great value to the people who have it. It is worth \$7 a barrel or \$9 a barrel, and it all belongs to the people who happen to sit on top of it.

Take the same oil in the North Sea, where it costs, let us say, almost \$7 to get out of the ground. That means the ownership has almost no value. All the cost of it is in the metal, the technology, the capital and the skill to get it out of those deep, rough seas. It is an entirely

different kind of resource. For that kind of resource you do not have a sense of running out. What you have is a sense of a race. As it gets scarcer and scarcer or harder and harder to get out, you have to go to deeper oceans or thinner ores or other forms of energy. The technology has to get better and better. You have to put more and more capital in. But technology and capital are things that grow. We can see ourselves adding them for the rest of human history. There is no sense that we have to run out of those things, and there is no sense that we have to lose that race. In fact, in the history of the last few hundred years we have been winning that race. That is, we have gotten resources which are harder and harder to get, and the cost hasn't been going up.

Chart 32

Rich-Poor Conflict

1. Important part of verbal international politics.
2. Rich countries need to have thick skin without hard hearts.
3. The poor will need the rich and won't be able to hurt them much.
4. The success stories will take much sting out of the issue.

Another very popular idea: One expression of the idea that we are going to be fighting about resources is the widespread idea that the poor nations are going to get together and attack the rich nations, that we cannot afford to have a world divided between rich and poor and have great disparities in incomes. I think that is basically wrong, and I would like to offer, with some diffidence, a different view of the situation (Chart 33).

Chart 33

One Perspective On World Poverty

1. The success stories have demonstrated that rapid growth (6-12%) is not restricted to a few lucky or special situations. (Clear 10 years from now)
2. The increasing wealth of the world will exert increasing pull on those behind
 - Value of cheap labor
 - Examples
3. How important is it whether the Industrial Revolution (every country over \$2,000 per capita) takes 300 years or 400 years? How will the question look in 10 years?
4. Income differences between nations will continue and probably grow. What is the nature of our interest in whether the Japanese are \$50,000 or \$250,000 when Indian per capita income is \$5,000/year

For the first 10,000 year of human history, mankind was, in present-day terms, poor. The richest civilizations—the Roman and Chinese civilizations—had, in modern terms, probably the equivalent of perhaps \$250 per capita. Nobody solved the problem of continued economic growth for decades or generations.

In the middle of the eighteenth century, the British learned how to do it. They began a continuous process of slow growth which has led to industrialization and to modern society as we know it. Over generations that meant that economies went from \$250 per capita to \$2,500 per capita.

We are now in the middle of a process in which everybody is going from what was all of human history, and is now regarded as abject poverty, to the modern world, which you might arbitrarily define as the minimum of \$2,500 per capita. It isn't clear how long that process may take. It may take 300 years, it may take 400 years, it may take 500 years. That is what we are in the middle of now. We are in the middle of a transition from the way all human history was in the past to the way it is going to be in the future. It is taking a relatively short time. Some countries are going there faster, some countries are going there slower, but it seems pretty clear what the direction is, what the process is. I believe there is no reason to think everybody is not going to get there, and, in fact, for a number of reasons I would argue that the rich countries in effect drag up the poor countries in addition to teaching lessons. After everybody learns how to develop, after all over the world people learn you cannot have a country which just cannot learn it, everybody is going to be getting rich.

There still will be the problem of disparities. The rich are getting rich faster, at least in absolute if not relative terms. But when the poorer countries have per capita incomes of \$2,500 (in constant dollars) the nature of the problem that will exist because the richest have incomes of \$50,00 or \$250,000 per capita is very difficult to understand. I think we can leave it for later generations.

I turn now from analysis to value judgments. We need to have a thick skin about what the poor countries say about us, but we should not have hard hearts. That is, we ought to be helping them as best we can but not believing what they say, either about us or about themselves.

Let me skip the population issue, other than to show this chart (Chart 34).

Chart 34

Population questions

1. Size at which world population "Level Off"
10 Billion, 15 Billion, 20 Billion
2. Speed with which national poverty is eliminated
3. Not: Space and crowding issue or question of availability of resources
4. But: Long term issue of possible slow growth after "levelling off" ($\frac{1}{2}\%$ per year means multiplying by 12 in 500 years, and 200 billion people is probably too many)

Now to look at some responses (Chart 35).

Chart 35

Responses

1. Sorry, no solutions
2. Morale required successfully to plug away at problems
 - Minimizing damage from conflict
 - Avoiding major war
 - Encouraging economic development
 - Dealing with pollution problems and technological dangers
 - Developing international institutions and attitudes helpful to peace
 - Attempting to prevent or respond to the spread of nuclear weapons
3. We need to renew our faith in Democracy and in our role as an example
 - Least Lousy
 - Many forms, erratic paths, slow steps

As I implied earlier in the evening. I am not going to offer any solutions. There are no solutions. Politics and conflict are going to go on forever. The State Department is going to be needed. Even ISA is going to be needed, and it is going to have plenty to do. What we have to do is deal with the problems as they come up.

One of the things we need in order to deal with these problems is morale. I am not going to try to define high morale but Charles Schulz gave a wonderful definition of low morale.



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If we feel like Peanuts here, like we are never going to do anything great, it is going to be very hard to cope with the problems of the world. There will always be people who say we have to give up and throw up everything because things couldn't be worse; that it is hopeless to try to accomplish anything; that we are no good, and we shouldn't try; that we should stick to Fortress America or U.S. isolationism, not try to exercise our power in the world because it is hopeless. to give in to dramatic solutions.

At least a modest degree of morale is necessary to solve these major problems which I have listed here. I would define this level of morale, tentatively, as a sense that one is working for a worthy purpose, that the long-term possibilities are good, or at least reasonable, that it is worth continuing to work and to suffer and to strive.

Finally I would like to argue for restoration of our consciousness of ourselves as a democracy with a profound message for the world. This was said some time ago by Learned Hand better than I can ever say it,

Chart 37

"Even in our own interest we must have an eye to the interests of other; a nation which lives only to itself will in the end perish; false to the faith, it will shrivel and pass to that oblivion which is its proper receptacle. We may not stop until we have done our part to fashion a world in which there shall be some share of fellowship; which shall be better than a den of thieves. Let us not disguise the difficulties; and, above all, let us not content ourselves with noble aspirations, counsels of perfection, and self-righteous advice to others. We shall need the wisdom of the serpent; we shall have to be content with short steps; we shall be obliged to give and take; we shall face the strongest passions of mankind—our own not the least; and in the end we shall have fabricated an imperfect instrument."

"But we shall not have wholly failed; we shall have gone forward, if we bring to our task a pure and chastened spirit, patience, understanding, sympathy, forbearance, generosity, fortitude, and above all an inflexible determination. The History of man has just begun; in the aeons which lie before him lie limitless hope or limitless despair. The choice is his; the present choice is ours; it is worth the trial."

Therefore, shall we not see (our flags) as more than a symbol for those alone over whom it waves? Shall we not believe that, be we never so prosperous, and safe, and contented, we shall have failed to grasp its meaning, and shall have been truant to its promise, except as we strive to make it a signal, a beacon, a standard, to which the best hopes of mankind will ever turn?"

Let me close with these quotations, from which I will repeat a few lines. Notice that he says:

"In our own interest we must have an eye to the interest of others."

That "must" is not an "ought"; it is a need. We need to have an interest or our nation "will, in the end, perish." I am not sure it is true of all nations that they have to worry about others, but I think it is true of the United States. The notion of the United States as carrying a message for the world is deeply ingrained in our country and we would suffer grievously if we had to give it up. Therefore, he says:

"We must do our part to fashion a world in which there shall be some share of fellowship, which shall be better than a den of thieves."

That is a very modest goal. He says, further:

"Even with that modest goal we cannot disguise the difficulties. Let us not content ourselves with noble aspirations, counsels of perfection, and self-righteous advice to others. We shall need the wisdom of the serpent, and we shall have to be content with short steps."

I think that Secretary Kissinger is fulfilling the first part of that. That is, he is not pursuing policies on a goody-goody basis but using the power of the United States and the full cleverness which he possesses. I am not so sure that he is content with short steps, but that is a key part of that wisdom.

"In the end we shall have fabricated an imperfect instrument, but we have to try. The qualities that are acquired are patience, sympathy, forbearance, generosity, fortitude and, above all, an inflexible determination."

Finally, he says:

"The history of man has just begun."

He has a sense that we are in a process lasting hundreds of years and we can take a perspective of hundreds of years. "The choice is ours. It is worth the trial. Therefore," he says—and this is the old-fashioned idea that I would argue should be restored to a major place, not in American policy but in the American sense of where we are and what we are doing in the world—that "our flag is more than a symbol for those over whom it waves. Shall we not believe that be we never so prosperous, safe and contented, we shall have failed to grasp the meaning of our flag and shall have been truant to its promise unless we strive to make it a signal as to which the best hopes of mankind will ever turn."

I think that ought to be at the center of our sense of where we are and what are the possibilities for the 1980s and 1990s and for the century that comes beyond. So I will leave with Learned Hand's words.

Final Plenary Session Address

Vice Admiral M.G. Bayne
Commandant
National War College

My purpose is to try to provide a "sense of the conference" with care, while being brief, not to do violence to the serious and exacting deliberations that have taken place. I do not mean by this that I would presume to summarize even the major findings of any of the working groups. Nor do I intend to contrive an artificial consensus where none exists or where there are substantial variances of perspective.

In the interest of brevity I will try only to identify certain major themes which have surfaced in several, if not all, of the panels and to illustrate those themes with examples from the various working groups. If in the process I distort individual or collective views, the blame is mine.

Purpose of the Conference

Accepting these caveats, let me turn back to our first day and review our objectives. Within a time frame through the 1980's, our purposes were twofold. First, to identify trends which may produce problems for U.S. National Security; and, second, to attempt to develop policy options for national planners that would permit the harnessing of these trends in ways that contribute to U.S. national security. I think it is fair to say that all three plenary speakers and all eight panels clearly identified major problems. Less universal was the ability of the panels to devise policy options to solve or ameliorate these issues. There are, I think, good reasons for this, reasons which will become clearer, as we thread our way through each of four major themes that have evolved in our deliberations. These are the changing perceptions of national security, the problems associated with projecting into an uncertain future from an often incomplete data base, the tendency to resort to crisis solutions, and the security paradox resulting from competing multilateral and unilateral demands as well as the conflict between external and domestic imperatives.

The Scope of National Security

General Taylor, in his remarks to the plenary session was prophetic of panel discussions, highly influential on their deliberations, or both. He made the point that in the 1980's the scope of national security will tend to widen and undergo modifications which will place increasingly complex and exacting demands on the power and influence of the United States. Without exception, every panel explicitly addressed this problem of expanding national security horizons or implied its relevance to the 1980's in the form of a consensus on policy options.

A few examples of this, and other, common trends in the conference deliberations may better illustrate the panel deliberations. The group discussing military force and non-military threats elaborates, by the very nature of their topic, this concept of an expanded arena of national security affairs. I am afraid that in establishing this topic on the applicability of the military aspects of national power to threats in economic and resource areas we gave this panel an extremely difficult item to digest. The general policy directions proposed by the panel indicate the complexity of the subject area. The time provided did result in clearing away of the underbrush and taking an initial look at main issues.

Even if military force has limitations in some instances, it would be totally misleading if I were to give the impression that military force is no longer a vital aspect of national power. General Taylor gave as much weight to the need for adequate military forces as for any other activity in the area of national security. This theme was also emphasized by Secretary Clements with specific details on the evolving structure of our military forces and by Mr. Singer in the context of the relations among the states of the future. If it can be said that the employment in combat of military force as a means to implement national goals and execute decisions is a waning asset, the point also can be made with equal certainty that the deterrence provided by the existence of credible military force is an obvious hallmark of today's and tomorrow's international relationships.

In this context, the panel dealing with strategic materials concluded that the need exists to insure an uninterrupted supply of essential raw materials for the maintenance and deployment of armed forces. They considered costs and availabilities of materials for which the U.S. is heavily dependent on foreign supplies, and affirm that, as a minimum, stockpile insurance is necessary to maintain forces which are adequately armed and ready for combat.

The Uncertain Future and Crisis Solutions

A second common theme was touched on by Mr. Max Singer in his most provocative presentation. He addressed the problems inherent in forecasting the future scope of the international environment when required to use a data base that must be incomplete, at best. This conference has had to project events across a number of years, any of which could bring uncertain or unprogrammed events to impact with sudden effect on our projections. The inability to recognize the path of perceived trends as organizations develop and relationships change—that is the inability to foretell the future—is perhaps best illustrated in the conference by the work of the panel on multinational corporations.

A relatively new phenomenon, multinational enterprises operate in a rapidly changing environment, where they are important but certainly not sole contributors to these changing conditions. Asking the right questions to focus attention on important issues is the best first step in any attempt by government to deal with trends associated with this new phenomena. In attempting to maximize their economic returns, and assuming relatively unhindered operations, the multinationals may pose serious problems to U.S. national security interests if vital resources escape national control. Do they undermine the domestic economic basis of U.S. security, either in specific industries or in the aggregate? Do they promote or export U.S. technology that might reduce our economic and military potential? Do they jeopardize overall relations between the U.S. and its traditional allies, and will they do so *vis a vis* traditional U.S. adversaries as multinationals enter those areas? Do they assure U.S. access to needed raw materials? The Conference deliberations have shown that much more study and understanding is needed before specific policies can be formulated; much more data is needed before guesses can be made as to what the results of policy options might be.

The energy panel, working from a more complete data base, did forecast—with reservations—and did discuss specific policy directions and goals to better realize a desirable national security and, as some would say, energy security position. While there was general consensus that the

market should be given maximum room to operate, it may sometimes be necessary to interpose government if desired goals are to be achieved. As examples, industry may be encouraged to develop alternative sources of energy in the United States. In these cases, such domestic investments have to be insulated from the risks of lowered foreign oil prices. In the shorter term, the danger of abrupt dislocations in foreign supplies can be mitigated by larger inventories, governmentally encouraged and underwritten, and held by those who normally import energy.

Another theme common to almost all of the policy recommendations of the conference was the call for prudence among those responsible for attempting solutions to the problems discussed over the three days. In circumstances characterized by non-existent data and other uncertainties, incrementalism or no action may be more appropriate than the application of a more extreme "crisis-mentality." Measures that might ultimately produce side effects more adverse to U.S. interests than the original condition should, of course, be avoided. Accordingly, many of the panels have recommended cautious responses to policy problems. For example, the panel on new forms of violence recommended avoidance of such "crisis-mentality" reaction to terrorism as over-reaction appears only to serve the interests of the terrorist. Similarly, attempts at extreme solutions to international currency problems are likely to exacerbate the difficulties of subsequent currency reform. Moreover, in the absence of more precise information on the impact of multinational corporations on national security, it appeared imprudent to members of the multinational corporation panel to undertake any governmental initiatives at this time. Also reflecting a prudent approach, the panel on Japan felt that it would be counterproductive to press Japan to ratify the non-proliferation treaty.

Having made a case for a prudent approach to new initiatives, the panels nonetheless acknowledge that there are issues at or near the crisis stage requiring definite and well conceived action. In particular, the currency values panel emphasized the disruptive effect of economic instability [inflation] upon the viability of democratic systems. More particularly, U.S. economic instability seriously reduces U.S. credibility to act as a world leader. These problems require strong U.S. leadership, a "call to sacrifice," and a political willingness to accept difficult deflationary policies.

The Security Paradox

The final theme complicating the choice of policy options, which I will discuss, might be termed the security paradox—a condition which arises from the conflicting demands on policymakers to satisfy different dimensions of security policy in a resource scarce world. Policymakers now must balance traditional security interests with increasingly critical economic interests—our own and those of our allies. For example, it seems unlikely that the U.S. and its allies in Europe can afford to continue nearly fifteen independent and often duplicatory defense programs. As Secretary Clements noted, "Foes in a security context may behave like friends in trade relations and vice versa."

This paradox is particularly evident in the deliberations of the panels addressing the problems of Japan and the Atlantic Alliance. For example, the Middle East crisis illustrated that despite our long association with European security, there was no automatic involvement of NATO or NATO members in support of our Middle East initiatives, nor should there necessarily have been. The

NATO charter does not extend to that area. Further, the U.S. must appreciate the degree of hazard to European economic interests and fragile domestic political regimes associated with supporting the U.S. position in the Middle East crisis. Clearly, the U.S. should seek greater consultation with NATO on all factors affecting national security. Similarly our relations with Japan must be tempered by a realization that traditional security concerns may be counterposed against domestic economic concerns. For example, could the U.S. public be convinced that lower living standards will be necessary in the interest of Japanese economic well-being if such steps were required for the continuation of the U.S.- Japanese security alliance?

General Taylor suggested a solution to the problem of an expanding context of national security affairs. This problem requires both an integrated approach across many functional areas to best bring to bear all available resource, as well as institutionalized planning support to better anticipate the serious problems. His proposed "National Policy Council" would provide continuity in staffing and planning as well as a device to focus attention more precisely on issues that cross traditional lines of departmental responsibility.

The security paradox also is evident in our attempt to achieve a coherent oil policy. The desire to act unilaterally to assure sufficient oil to satisfy a traditional concept of U.S. national security could seriously compromise other national security concerns. First, any attempt to achieve complete energy independence, a position of energy autarky, would be prohibitively expensive. The attempt to achieve energy security by establishing dominant spheres of influence in resource rich areas could well unleash destructive competitiveness among alliance partners, and erode alliance links. While the U.S. could probably achieve, because of its size and wealth, a position of dominance in an uninhibited scramble for energy supplies, the costs in broader political terms could well exceed any apparent benefits from enhanced energy security. Further, the panel on energy determined that an unbridled struggle for autarky by the U.S. could, by giving this example to others, seriously affect those export areas in which the U.S. is a primary exporting country.

Summary & Conclusion

The picture of the world of the 1980's that emerges from the deliberations of the panels—either explicitly or implicitly—is one characterized by increasing economic, political and social interdependence. These trends have been perceived in the early seventies, but the impact for national security planning is now more clearly evident, particularly along the economic dimension. But I would not infer from this increasing interdependence that we are about to witness the demise of the nation-state. To be sure, trends toward regional linkages of both a political and economic nature will be strengthened, and multinational corporations will tend to increasingly blur traditional political distinctions. Hopefully, regional and international organizations will play greater roles where they can best advance the aim of world peace. In my judgment, however, the nation-state will continue as the dominant actor on the international scene. To paraphrase Churchill, it may not be the best political form, but no better scheme for satisfying the needs of large groups of people has yet emerged.

This being the case, I close with something near an exhortation—the United States is, despite our self-flagellating tendencies, a viable, dynamic, and healthy nation. We have a tremendous capacity for leadership. We must exercise it wisely and prudently. And, while exercising it, commanding respect rather than demanding it.

In my judgment, this, the first National Security Affairs Conference, has fully satisfied the ambitious objectives laid before it. I feel certain that the improved understanding of the complex problems examined here can enhance the ability of our defense planners to cope with the changing international environment of the 1980's.

PANEL I

***STRATEGIC MATERIALS –
More Vulnerable Bottlenecks Ahead?***

- Panel Chairman:** Mr. Simon D. Strauss, Executive Vice President, American Smelting and Refining.
- Panelists:** Mr. Paul Boeker, Policy Planning Staff, Department of State.
- Mr. Hans H. Lansberg, Director, Energy and Minerals Program, Resources for the Future, Inc.
- Mr. David Culver, Leader, Commodity Policy and Programs, U.S. Department of Agriculture.
- Captain Chantee Lewis, USN, Faculty, Naval War College.
- Captain Donald Carson, USN, JCS Joint Staff (J-4-Logistics).
- Rapporteur:** Lieutenant Colonel Ted Rowden, USAF, JCS Joint Staff (J-4-Logistics).

STRATEGIC MATERIALS: MORE VULNERABLE BOTTLENECKS AHEAD?

Simon D. Strauss
American Smelting and Refining Company

The Arab oil embargo of the winter of 1973-74 has created an atmosphere among those concerned with American economic and defense policy not unlike that which existed in the winter of 1940-41. Suddenly there is increased awareness of our dependence on an uninterrupted flow of vital materials for the smooth functioning of the U.S. national economy. And among those responsible for national security, there is a renewed sense of apprehension about the degree of dependence on imports of basic commodities, some of them items of which the general public has little knowledge yet which may be of critical significance in time of national emergency. It may prove profitable to take a brief look at past experience in this field.

Following World War I there had been prolonged discussion among the executive departments and in the Congress of the desirability of securing the country's resource base through the establishment of reserves of those commodities of which the bulk of the country's supplies were imported. But it was only after the fall of France in June, 1940, that any real effort was made to prepare for a possible emergency. By the fall of that year President Roosevelt asked the Congress to give broad authority to the Reconstruction Finance Corporation for a program to accelerate accumulation of reserves of rubber, tin, and other imported items. The authority was granted, a rush program did develop and one year later, when Pearl Harbor shocked the country into World War II, a broad effort was under way.

Nevertheless for the first three years of actual warfare, many costly programs of improvised insurance against loss of supplies of strategic materials were necessary. For example, the development of synthetic rubber was accelerated, extremely low-grade domestic deposits of chrome and manganese were equipped for production, and labor-intensive efforts were made to substitute poor-grade domestic mica for quality imports from India. These programs and many others absorbed manpower, scarce materials, transportation facilities and energy resources that might otherwise have been available for direct prosecution of the war. In that sense their cost was far greater than the money spent.

It was for this reason that immediately on successful conclusion of the War in 1946 the Congress enacted P.L. 520, the stockpiling act that created stockpiles of critical and strategic commodities. Targets were set for ninety-five different items by inter-departmental committees that made elaborate studies based on assumptions as to the probable duration of future conflicts, the degree of security that could be assumed with respect to the various originating sources of each commodity, the probable extent of domestic supplies, the importance of each commodity to the military and to essential civilian activities, and other variables.

Congress proved relatively generous in providing finance. Stockpiles were gradually accumulated, with the emergency of the Korean War providing an important spur when the demands of that conflict, added to the burgeoning civilian demand of the post World-War II era, catapulted commodity consumption to new record levels.

Time dulls memories and creates new imperatives. In the early sixties, the stockpiles came under critical examination following a change in Administration. President Kennedy stated that he felt the stockpiles were too large, suggested that they had been acquired in some cases to help commodity producers rather than to promote national security, and asked the Congress to launch an investigation. The targets for the stockpiles, following re-appraisal, were drastically reduced. In the case of some commodities the targets were entirely eliminated. Congress was asked from time to time to authorize the liquidation of stockpile surpluses. Since fiscal year 1962 stockpile sales have greatly exceeded stockpile purchases. The tonnages held have been sharply reduced, but inflation has had the effect of offsetting sales by increasing the dollar value of the remainder held. Thus on April 30, 1974, stockpile holdings were reported as worth \$7,032,000,000 compared with \$7,723,000,000 on December 31, 1961, despite sales in the intervening period of over \$5,200,000,000.

Little more than a year ago the Nixon administration moved a step further, announcing that it had concluded (1) that stockpiles represented an outmoded concept, (2) that future conflicts would be of a different character than past wars, (3) that stockpile objectives could safely be cut to a fraction of former levels, (4) that stockpile sales could be used to fight price inflation (to prevent further price increases or perhaps to roll back prices from the levels prevailing in March, 1973), and (5) that therefore the Congress should be asked to enact an omnibus bill authorizing further sales of fifteen commodities, representing the bulk by value of the stockpile still held. Congress, however, did not enact this omnibus bill. Instead, late in the year it authorized sale of four commodities - copper, aluminum, zinc and opium. Bills are now pending on sales of silver, cadmium and antimony but the omnibus bill seems dead.

Meanwhile, the Arab oil embargo, to which reference has already been made, has caused some second thoughts. Instead of directly reversing the Administration posture on military stockpiles, it is now being proposed that a new stockpile concept be adopted. This would be to have stockpiles created for economic reasons - to avoid peacetime disruptions caused by interruptions in the flow of basic materials.

So much for background. What are strategic materials?

The stockpile program authorized by P.L. 520 defines strategic and critical materials as "basic industrial raw materials important in the production of military weapons or for essential civilian defense-supporting industries." At its peak ninety-five commodities were so designated of which seventy-three were minerals and twenty-two were agricultural or forest products. Not designated as strategic materials were mineral fuels - coal, oil and natural gas; iron ore, iron or steel; commodities widely used in the building trade such as cement, stone, sand, glass and timber; non-metallics used in the production of fertilizers; most textiles; and food products.

These items were not listed as strategic for a variety of reasons. So far as foodstuffs are concerned, there is a high degree of substitutability. Trade in these products may be desirable but it is not essential.

Man has been able to feed, clothe and house himself in primitive societies without foreign trade. As to the eventual ability of mankind to grow enough food to support itself - that is a large subject outside the scope of this paper. Experience has shown that with the use of fertilizer food

yields can be increased. Fertilizer raw materials are abundant in North America -- sulphur, phosphates, and potash. Only anhydrous ammonia, derived from natural gas, may constitute a problem in the future.

There is also a high degree of substitutability in the common building materials. In certain societies construction is primarily of wood; in others of cement or stone. Nonetheless man manages to house himself.

Similar considerations apply with respect to clothing. Cotton, wool, silk, synthetic fabrics, animal skins and furs are the commodities that enter into clothing. Where one is not available, others will do.

The fact that the list of strategic materials has not in the past included basic fuels and iron ore, iron or steel, may appear more surprising. A major factor has perhaps been the sheer bulk involved in stockpiling these particular commodities and the enormous cost. The Administration's avowed goal of making the U.S. self-sufficient in energy supplies by 1980 is a clear indication of a change of concept in respect to this country's present dependence on imports of petroleum products and prospective dependence on imports of natural gas. The future of energy is a separate topic for this conference, however, and this paper, therefore, will not pursue the matter further.

There remains increasing U.S. dependence on imports of iron ore. Thus while this commodity and the metals derived from it -- iron and steel -- have not been included in previous definitions of strategic materials, perhaps it is time to take another look at the subject. There will be some discussion of the iron ore position in this presentation.

To assess U.S. vulnerability to potential bottlenecks in strategic materials, some major questions come immediately to mind.

1. In the case of mineral strategic commodities, are adequate reserves known?
2. If the reserves are available, is there adequate capacity to produce them and where is that capacity?
3. What is the likelihood that there will be interruptions for economic, political, or (in the event of war) military reasons in the supply of mineral commodities which the United States must import?
4. In the case of renewable resources, which are the ones that the United States must import and on which can it reasonably expect to be self-sufficient?

To state these questions is enough to make clear that matters of subjective judgment are involved. As in all human affairs, relatively few definitive answers can be put forward that are not open to honest differences of opinion. It is for this reason that the author has been glad to accept the challenge implicit in the preparation of this paper.

Reserves

In the last five or six years there has been an evolving and understandable concern with the environment. Many serious students of human affairs have suggested that the depletion of non-renewable resources will shortly bring about a major crisis in international affairs. Economic advance, they claim, will be brought to a halt through exhaustion of known reserves of fuels and other minerals.

It is probably the case that petroleum reserves will be so seriously depleted in the foreseeable future that other sources must supply the bulk of energy needs. For a few of the metals – silver, tin and mercury come to mind – the rate of discovery of new reserves is barely keeping pace with the present scale of production. Thus a question exists whether further major growth in consumption is supportable.

But for coal and most of the metals – iron, aluminum, copper, lead, zinc, nickel, chrome and manganese – the opinion of competent geologists and mining engineers is that potential world reserves still to be tapped are adequate to sustain further growth commensurate with rising populations and improved standards of living, particularly if weight is given to technological developments and progress in recycling. Furthermore now there is the added potential of underwater resources, a field in which enormous research efforts are now under way and spectacular advances can be expected in the years ahead.

Of course one must concede that production of minerals involves some disturbance of the environment. If that disturbance seems too high a price to pay, then mankind must accept the alternatives; drastic reductions in present standards of living and the probability that populations will have to shrink below their present levels – let alone continue to increase. Limitation of environmental disturbance to the maximum extent feasible with improved living standards is one of the great issues of modern times. One has the feeling that in the last two or three years there has been growing recognition both by the environmentalists and by industry that a *modus vivendi* must and can be worked out. This paper will not attempt to define this *modus vivendi* – that is a major subject in itself – but instead will assume that workable rules will emerge from the current debate.

Given these postulates, the proposition this paper advances, therefore, is that at least over the balance of this century availability of resources is *not* one of the bottlenecks that lie ahead in the case of most minerals.

Capacity

Is capacity a bottleneck?

On the evidence of the last few months, productive capacity for most significant strategic materials does not appear adequate to meet demand. Shortages have developed. Prices have risen sharply, and yet -- in spite of recession in other fields of economic activity -- buyers are unable to satisfy all their wants. Inventories in producers' hands have been run down to bare minimums and plant operations, except for labor difficulties or mechanical failures, are at full capacity in all

sections of the Free World. Data on production in the so-called centrally planned economics are not published. It is not possible to judge whether there is reserve capacity in those countries, but this seems unlikely.

What is the nature of the seemingly inexorable demand for strategic materials? Last year, 1973, consumer buying of durable goods was at an extremely high rate in the industrialized countries. This included automobiles, electric appliances and housing. To this high level of consumer demand there was added a heavy call for capital equipment. Much of this equipment, of course, goes into the expansion of existing industrial production – including the metal industries themselves and such other fields as power generation, fertilizer production, transportation equipment (notably freight cars and shipbuilding) and the other heavy industries.

In addition to metals used for these traditional purposes, insistent demand has also developed from sources which have not been significant components of previous booms. The imposition of environmental regulations has caused industry to invest heavily in elaborate equipment that does not add to productive capacity but is used simply to bring existing productive facilities in line with regulations covering air, water, noise and other environmental pollution regulations.

In addition, strategic commodities are being purchased as a hedge against inflation. In some cases manufactures endeavor to increase inventories because they fear price increases or because they are concerned about availability of supplies at some future date. Other buyers do not use commodities in their own businesses, but prefer investing in commodities rather than hold cash or securities. Commodities to them are hedges both against further inflation and against the currency devaluations and revaluations that have unsettled the international monetary scene since August, 1971, when the U.S. suspended convertibility of dollars into gold for central banks of other countries.

Producers of minerals are unable to expand output quickly when this kind of overwhelming increase in buying demand develops because it takes longer to expand mineral production than to expand manufacturing output. Most mineral deposits occur in remote areas where the enterprise must provide infrastructure as well as production facilities before it can commence operations. Typically this infrastructure may include housing accommodations, transport facilities, power supply, schools, and even commercial establishments. After a new mineral deposit has been drilled out and financed for production as much as five or six years may elapse before output begins.

Since this is the case, why do not companies producing mineral commodities maintain reserve capacity to meet sudden onrushes of demand? While some reserve capacity is available at times, this is unlikely to be extensive because of the extraordinarily high overhead costs that must be met.

As an example, to produce one ton of copper between \$3,000 and \$4,000 of capital is now required—or to put it another way, a project with an annual capacity of 100,000 tons of copper may cost \$300,000,000 to \$400,000,000. With interest rates at present levels, even if the operator is able to secure capital at a 10% annual charge, idle capacity will cost between \$300 to \$400 a ton in interest a year or say 15 to 20 cents a pound. As recently as the end of 1972 the price of copper was 50 cents a pound.

Consequently, once built, the enterprise has a great incentive to operate as close to 100% capacity as is technically feasible. Apart from the costs involved in curtailing production, the producer must also consider the problems involved in maintaining an adequate labor force. Workers are increasingly reluctant to accept overtime assignments. Consequently variations in the rate of production imply variations in the number of men on the payroll. In an isolated mining camp, if a man is laid off, he tends to drift away as alternative sources of employment are lacking. When it is desired to add to the payroll, the men simply may not be available.

Thus the mineral field has a pattern of relatively inelastic short-term supply while demand is extremely elastic. The industry has problems of unwieldy surplus at times of falling demand as well as problems of shortages and rising prices in times such as the present when demand is strong.

In view of shortages and high prices, it would appear that major expansion of productive capacity should be under way for those commodities with substantial known untapped reserves. However, several factors are inhibiting additions to productive capacity, both in the United States and abroad.

The growing nationalist trend manifested by the principal mineral exporting countries is definitely slowing investments in mining projects in many parts of the world. This is not confined to the so-called developing or Third World countries but includes two industrialized countries - Canada and Australia - which in the last 20 years have enjoyed major expansion of mineral production. Until quite recently large sums of money were being invested in exploration in these two countries. Both of them are now imposing restrictions on foreign capital and have under consideration heavy new royalties and tax burdens on the mining industry. These developments have caused a sharp curtailment of exploration and some postponements of production projects.

In the so-called Third World countries government ownership is increasingly replacing investment by the private sector. The most recent development is the proposal by the Venezuelan Government to expropriate two large iron ore mines owned by U.S. steel companies. Third World countries expect to obtain funds for mining undertakings from international lending institutions, but it seems unlikely that such projects will move forward swiftly in the atmosphere that has been created.

However, some observers feel that a more rapid rate of depletion of U.S. reserves is in the long run unwise since once these reserves are exhausted the United States will be more than ever vulnerable to foreign domination of commodity markets. In the past, some conservationists have even argued that this country should abandon production of raw materials to conserve such resources for emergencies. Few of those engaged in the mineral industry share this view. Without an industry in being, the existence of idle reserve capacity is of little value in a sudden emergency situation. Rather, miners believe that a healthy and prosperous mining industry will be a major contributor to national strength and that domestic production should be encouraged.

Despite the argument that this country is increasingly becoming a "have not" nation in terms of mineral reserves, since World War II there have been two striking examples of major expansion of domestic mine production, completely confounding the expert opinion prevalent in the early 1950s. The Paley Commission in its work, published in 1952, estimated that by the mid-1970s

domestic mine production of copper could not be safely counted on to exceed 800,000 tons a year and domestic mine production of lead would approximate 300,00 tons a year. Instead, thanks to the development of major deposits of copper in the Southwest and of lead in Missouri, the production of these two metals in 1973 was roughly double the quantity estimated by the Paley Commission. Further expansion of domestic production of other -- but not all -- strategic materials appears to be warranted by results of recent exploration.

However, expansion of capacity (as contrasted with exploration) is being inhibited by uncertainties arising from environmental regulations the industry is currently facing. For example, regulations regarding sulfur emissions raise a big question mark for the copper smelting industry. New techniques are being studied but it will take years to evaluate their economic potential; meanwhile the industry hesitates to expand existing plants or to build new ones embodying the traditional technology because of the cost of meeting environmental standards and the possibility that such facilities may prove to be obsolete.

Congress has before it legislation affecting surface mining which may add substantially to operating costs. This is tending to delay the opening of new pits.

Three years ago Congress enacted a minerals policy act which set forth the legislators' desire to encourage domestic mining through the evolution of a consistent governmental policy toward the mining industry. However, this act so far is only a statement of laudable intentions. What specific legislation has been enacted or proposed regarding mining has all been in the direction of creating added cost burdens or removing such tax incentives as may exist.

In this respect U.S. policy differs sharply from that of other major industrialized countries. In the case of countries with centrally planned economies (i.e., Marxist states) national self-interest clearly dictates the determination of the level of production, regardless of economics. The U.S.S.R. is far more self-sufficient in mineral supply than is the United States. Whether its productive facilities would be competitive under a free enterprise system no one can ascertain, but the Russians obviously will not import a single ton of copper, aluminum, lead, zinc or other metals if a domestic supply is available.

Among the United States' competitors in the capitalistic world, government assistance is also very much the rule. For example, mine production of zinc in Japan accounts for one-third of that country's zinc requirements -- roughly the same proportion as in the United States. Both countries import two-thirds of the zinc they use. Japan last year imported 98% of its zinc requirements in the form of concentrates to be smelted in Japan and only 2% in the form of metal. The United States, by contrast, satisfied its import requirements for zinc by importing only one-third as concentrates to be smelted in this country and two-thirds as metal smelted abroad. The almost complete exclusion of zinc metal imports from the Japanese market could have been possible only by close co-ordination between Japanese industry and government. Such coordination is lacking in the United States. Almost half the capacity of U.S. zinc smelters was closed down between 1969 and 1972 because of inability to match the advantages afforded overseas competitors in such countries as Japan, Germany, Belgium and France by their governments. Efforts by industry to develop new zinc smelting capacity in the United States have received no real encouragement or support from government. No one agency has been prepared to assume a positive role in reversing the precipitous decline of the domestic zinc smelters.

During the period from August, 1971 to April, 1974, domestic producers of basic commodities were under price controls while their overseas competitors were free to sell in the U.S. market at far higher prices. Serious distortions in the market flow of materials resulted. The experience makes domestic producers of commodities apprehensive as to the possibilities that such controls will be imposed again and will be administered with the same lack of realism with regard to markets for internationally traded commodities. The view of the industry is that in peace time the unilateral imposition of price controls on domestic producers of such commodities cannot work and is certain to be disruptive.

In sum, capacity to produce strategic materials is expanding at a relatively slow rate because of nationalism abroad and governmental indifference at home. This is not to say that shortages will prevail at all times. Economic development may cause a downturn in the general level of industrial production which will reduce consumption of metals. Apprehension over inflation or monetary uncertainties may lessen, in which case investors may find commodities less attractive and other forms of investment relatively more attractive. But, given the inhibitions to expansion of productive capacity as they now appear to exist, in the absence of stockpiles of strategic materials, the U.S. is vulnerable if adverse political or military developments should occur at times of strong economic activity.

Trade Considerations

The discussion of adequacy of mineral reserves and availability of productive capacity thus far has been primarily in terms of the worldwide situation. Now it is necessary to take a look at bottlenecks that may arise as a consequence of the uneven geographic distribution of reserves of strategic materials. This must include consideration of economic or political forces that could hinder free flow of strategic materials across international boundaries - viewed from the standpoint of the United States.

Although this country is one of the world's two largest producers of minerals (the other being Russia), there are serious gaps in the range of minerals produced within its borders. For example, among the major minerals this country has virtually no reserves of tin and platinum metals. Most of its reserves of manganese, chrome ore, bauxite (the chief source of aluminum), and nickel are either limited in extent or extremely low-grade so that many of these deposits are not competitive in world markets under present conditions. Reserves of iron ore, zinc and silver are more nearly adequate but, nevertheless, the country is heavily dependent on imports. Although not self-sufficient in lead or copper, the development of additional reserves of these two metals in recent years has greatly reduced dependence on imports.

There has been widespread apprehension that the example established by the Arab oil exporting countries may be emulated by exporters of other materials which this country imports in large amounts.

The United States cannot claim that the action of the Arabs in embargoing oil shipments for political reasons was inconsistent with international practice. This country has also interfered with trade for political reasons. Cuban nickel and Rhodesian chrome, for example, have not been permitted to enter this country because of disapproval expressed by Washington over the political affairs of those two countries. Until recently imports of Chinese mineral products, such as antimony and tungsten, were prohibited.

Trade restrictions for political considerations have been applied to subsidiaries of American companies operating outside the United States. This has caused problems in the past, for example, with Australia and Canada where affiliates of American concerns were prohibited from dealing in Chinese materials. It is still true with respect to foreign-based American-controlled companies trading with Cuba, the recent exemption granted to Argentine affiliates of U.S. car manufacturers having been an exception.

This point is made because U.S. citizens tend to forget, when criticizing actions taken by other countries, that the United States itself has been actively interfering in trade for political reasons.

In analyzing U.S. dependence on import sources for strategic materials, distinctions should be made with respect to three factors:

One is geographical proximity. Wartime experience has demonstrated the significant advantage of trading with countries that share a common boundary with the United States for bulk goods that would otherwise have to be imported by water.

The second factor is the number of countries producing the strategic materials the U.S. imports. The risk is greater when the number of producers of a commodity is small -- as, for example, platinum metals or chrome ore -- than when the number of producers is large -- as, for example, lead or zinc.

The third factor is whether the supplying countries are themselves industrialized or whether they are developing nations, which depend on raw material exports. The recent U.N. Conference on Raw Materials Problems made it clear that the so-called Third World countries are increasingly conscious of the effectiveness of the oil exporters in obtaining high prices and large profits through concerted action. It is these countries and not the industrialized powers that are most likely to form exporter clubs.

The Arab oil producers were able to make their price and production actions quickly effective in late 1973 due to a combination of favorable conditions. The principal factors may be defined as follows:

- (1) The principal Arab oil exporters have unusually strong financial reserves.
- (2) Restrictions on the rate of oil production or embargoes of shipment of oil to certain destinations cause few employment problems because production of crude is not a labor-intensive process.
- (3) Higher prices more than offset reduced volume of exports. Thus these countries not only can pay for whatever imports they need, they are accumulating surplus funds.
- (4) The demand for oil from the importing countries has risen steadily over many years. It is influenced only slightly by cyclical business trends and depends more on secular factors such as the growth of population, increased industrialization and the increased use of energy as a result of higher standards of living.

(5) Oil, once consumed, is gone—there is no scrap recapture.

(6) Substitute sources of energy would require huge capital investments and a long lead time before replacing a substantial share of the oil market. This is true of coal, oil shale, nuclear energy, thermal energy and solar energy.

One cannot overlook the unifying effect on the Arab oil exporters of their common opposition to Israel. This ideological unity gave them an incentive beyond the economic drive to raise prices.

The position in other major strategic materials is in many respects quite different. Similar uniformity of ideologies is less significant among the exporters of, say, copper or tin. There is a great range in the economic strength of major exporters of such materials as iron ore, lead or zinc. Thus it is difficult to indulge in sweeping generalizations as to the probability that countries exporting other commodities will be able to duplicate the success embodied by the oil exporters.

There follows a statement of the position with regard to some of these other commodities:

Iron Ore—World iron ore production is widely scattered. At least 35 countries produce in excess of one million tons of iron ore a year. Total world production is in the order of 750 million tons. The Soviet Union, the United States, Australia, France, Canada and China, all large steel producers, each produce in excess of 40 million tons a year.

Among the so-called Third World countries the largest iron-ore miners are Brazil, Venezuela, Liberia, Chile and Peru, accounting for about 13% of the world total. Australia and Canada, the two industrialized countries produce about 12%, much of which they consume themselves. The United States imports less than a third of its needs. Half of those imports are from Canada and three-tenths from Venezuela.

An effective grouping of iron ore exporters would probably be difficult to organize. For instance, conflicting points of view would be bound to arise as between countries such as Liberia, entirely an exporter, and Canada with its substantial steel industry.

The limited financial resources of countries such as Liberia, Peru and Chile would cause serious consequences from a cutback in production designed to force a rise in price. The risk of local unemployment would be greater than in an oil cutback. Higher prices for iron ore would lead to more intensive collection of scrap or would encourage production of ore from marginal deposits in the importing countries. Thus an effort to force higher prices for iron ore might well cause a net loss of market share by the exporting countries. Furthermore, steel is a notoriously cyclical business. Even if temporary success should result from a banding together of iron ore exporters during a period of rising demand, serious problems would ensue when a downturn in business activity forces a cutback in steel production. It is at such times that international agreements are most likely to founder on misunderstandings.

Bauxite—Free World bauxite production is far more concentrated geographically than production of iron ore. In 1972 bauxite production was approximately 75 million short tons, of which 40% came from Australia and Jamaica. Another 20% came from Guinea, Surinam, Guyana

and the Dominican Republic. Except for France, no Free World industrialized nation produces as much as 20% of its own requirements.

On the face of it, therefore, bauxite appears to present better possibilities than iron ore for unified action by the governments of exporting countries to improve the return on their exports of this basic raw material.

There are, however, severe limitations. Except for Australia, the other principal bauxite exporters lack financial strength. The West Indian and African countries can ill afford to lose revenues by restricting exports. Employment in the bauxite mines is a major factor in Jamaica, Guyana, Surinam and Guinea.

Still more significantly, although bauxite is the highest grade aluminum-bearing raw material, alternate sources are available. Much work has been done on aluminum-bearing clays in the United States; the Soviet Union produces a significant share of its aluminum production from nepheline syenite. Conversion from bauxite to other raw materials could not be accomplished overnight but it is feasible over the long term. Bauxite exporters must weigh this possibility carefully as they consider bauxite prices.

Early in 1974 the major bauxite exporting countries did form an organization to study the pricing situation. One major exporter, Jamaica, has begun discussions with the operators of its bauxite deposits regarding pricing, royalties and other marketing factors. In analyzing the effect of bauxite prices on the aluminum industry, it must be recognized that the present value of bauxite at the point of production represents less than 10% of the total value of aluminum produced. Even after bauxite has been concentrated into alumina its share of the gross value of aluminum is probably less than 25%. A major rise in bauxite prices, therefore, will have less effect on the price of aluminum than the same percentage increase in the price of crude oil on the price of gasoline.

Copper—Four major copper exporters—Chile, Zambia, Zaire and Peru—have a joint exporting organization known as CIPEC. These four countries account for about 37% of Free World mine production of copper and about 52% of all copper exports as their home consumption is small. The United States is not heavily dependent on the CIPEC countries. U.S. mine production accounts for 90% of this country's primary copper requirements. Of the 10% imported, two-fifths come from CIPEC countries.

However, CIPEC actions in the copper market elsewhere will affect the market here. During the repeated periods of copper shortage in the last 25 years the US market has been heavily influenced by price developments elsewhere, despite this country's relative self-sufficiency compared to industrial competitors in Europe and Japan.

Fifteen years ago marketing of CIPEC copper was largely in the hands of private companies based in the United States, the United Kingdom and Belgium. Today the four CIPEC governments take an active role in marketing matters, each having established organizations to control sales of copper.

CIPEC was originally organized in 1967. In the almost seven years that have elapsed, there have been repeated exchanges of ideas as to how concerted action to control the copper price could be implemented. Reportedly CIPEC members are now considering establishment of a floor price but at the time this paper was written no details were available. Meanwhile the individual sales procedures are quite similar but this is due primarily to the force of the market place rather than to any understanding or agreement.

Should CIPEC undertake price maintenance at a time of weakened demand, its 52% share of the world trade—although large—might not be large enough to insure success. Presumably, therefore, CIPEC would seek the active cooperation of other major copper exporters—notably Canada, the Philippines, the Union of South Africa, Australia and Papua-New Guinea, now a significant factor thanks to the large new mine on Bougainville Island. How willingly these others would cooperate is uncertain.

Because of the importance of copper in terms of employment and foreign exchange earnings to all four CIPEC countries, they would find it difficult to restrict production or exports over any considerable period of time without active financial support.

There has been speculation in the press that such support may be forthcoming for the copper producers from the Arab oil exporting countries. However, no concrete information is available at the time this paper is being written.

Known copper reserves in the world are large. Several major deposits have been drilled out but have not yet been equipped for production because of financing or political problems. Any scheme that puts a floor price under copper will surely stimulate the financing of such projects—particularly in areas outside CIPEC control.

High prices will also provide incentives for still more intensive recycling of copper. In the past the view has frequently been expressed that high prices for copper stimulate substitution but this view is now less firmly held because of shortages of some competitive materials.

Tin—Tin is the non-ferrous metal in which Free World production is almost completely dominated by the developing nations. Of total tin production of about 200,000 metric tons a year, more than 80% is produced by six countries—Malaysia, Bolivia, Thailand, Indonesia, Zaire and Nigeria—all developing countries. The only industrialized country with significant tin production is Australia with about 6% of Free World supply.

Prior to World War II the six countries mentioned collaborated in an export control scheme intended to maintain stable tin prices. The scheme was operated by governments and not by individual tin producers. Following the end of World War II, international collaboration was put on a different basis. The major consuming countries were invited to join and the International Tin Council was formed. It now has seven producer and twenty-two consumer members. This organization for more than twenty years has tried to stabilize tin prices through a buffer stock operation, buying tin when prices are low and selling when prices rise. The quantities held have shown great variation. For example, the stock was only 2,692 tons as of March 1, 1971, rose to 12,479 tons by the end of 1972, and since then, reflecting the excellent level of economic activity in 1973, fell to 4,000 by the end of the third quarter of last year.

Although the tin industry is trying to stabilize prices, results have not been impressive. Currently the price is about \$4 a pound, which compares with a level of about \$1.75 a pound in 1971-1972. The previous high was in 1964, when in a single year the price varied from a low of \$1.31 a pound to a high of \$2.17.

The effort to stabilize tin prices has been carried on for a longer period of time than for any other major mineral. In the writer's opinion the tin experience is more representative for other minerals than is the oil experience. Tin has analogies for other metals in such factors as scrap supply, substitutability of other materials, significance in terms of employment, and susceptibility to cyclical business influences.

Lead and Zinc—Because production of lead and zinc is so largely interrelated, economic studies of these two metals usually encompass both. Some zinc deposits carry little or no lead and some lead deposits have a relatively limited zinc content. However, the bulk of the production is joint. Mine output of lead and zinc is largely from industrialized countries. The United States, Australia and Canada are the three largest mine producers of both. They account for half the Free World's mine production of lead. Among developing countries Peru, Mexico and Morocco are substantial miners of both lead and zinc. Zaire and Zambia are significant miners of zinc.

Japan, Sweden, Spain, Germany and Italy, countries that on balance are importers of most minerals, have lead-zinc mine output. Ireland is becoming an important producer of both. In the course of the next few years the Danish colony, Greenland, will also rank among the larger sources of these two metals.

There seems little in this pattern of supply to cause apprehension that lead or zinc may be subjected to concerted governmental efforts at market control.

Nickel—Free World mine production of nickel, until quite recently, was obtained predominantly from Canada and New Caledonia. In 1970 their contributions were 58% and 22%, respectively, of the total. This situation is now changing rapidly. Australia, the Dominican Republic, the Philippines, Indonesia, Guatemala, Colombia, and Botswana all have major programs for nickel production.

To form an effective consortium of exporters is difficult even when the prospective members are well established in the field. Establishing agreed export levels is a necessary concomitant to such schemes. The difficulties are compounded when newcomers are breaking into the field—their production potentials and economic viability have not been ascertained in a way that will convince the established exporters. Hence conditions do not appear ripe for an effort to create a nickel export control scheme—and indeed there are no signs that such a move has been actively contemplated.

Metallurgical Chrome Ore and the Platinum Metals—Two important strategic materials with a strictly limited number of significant supply sources are metallurgical chrome ore and the platinum metals. Particularly interesting is the fact that a major Free World source of these materials is the U.S.S.R. For metallurgical chrome ore the two other major sources are Rhodesia and Turkey. For platinum metals the two other major sources are the Union of South Africa and Canada.

Thus countries that are ideologically very far apart—the U.S.S.R. and Rhodesia in the case of chrome ore and the U.S.S.R. and the Union of South Africa in the case of platinum metals—would have to have a meeting of the minds to establish an effective exporters' club in these materials.

Yet experience has shown that sometimes those who are ideologically poles apart will combine if chances of success seem good. The short-lived German-Russian agreement of 1939 led to World War II.

Metallurgical chrome ore is essential for the production of stainless steel. The platinum metals have many industrial applications, quite apart from their decorative uses, but most recently have attracted attention through their use in manufacture of catalytic converters for treatment of exhaust emissions from automobiles.

If the prospect for success in establishing controls over strategic materials is greater when the number of participants is limited, then chrome ore and platinum metals must be placed high on the list of materials that might be subject to joint action by exporters.

Manganese—There is a significantly larger number of important producers of manganese ore in the world than there is of metallurgical chrome ore. World production in recent years has exceeded 20 million tons and seven countries each have a production in excess of one million tons annually—Russia, Union of South Africa, Brazil, Gabon, India, Australia and China. Ghana, Zaire, Mexico and Japan are also significant producers.

The United States has the advantage of having a large stockpile of manganese ore in hand and there are extensive but extremely low-grade deposits in this country which, in an emergency, could be called on.

There is a considerable parallel in the wide distribution of sources between the production of manganese and the production of iron ore. Moreover, the work being done on possible exploitation of underseas mineral resources is now largely centered on the manganese-rich modules found at great depths. If economic viability is established, extremely large supplies of manganese will become available. Therefore, it is doubtful that market control could be effectively maintained through an exporter's club.

Deliberate withholding of Arab oil contributed to, although it was not entirely responsible for, the shortage of petroleum products in this country while the embargo lasted. From these discussions of some of the principal strategic minerals, it is clear that shortages that existed in late 1973 and early 1974 have not been the consequence of similar deliberate withholding of available supplies. Rather it bears repeating that the shortages were due to a sharp rise in demand and the relative inelasticity of capacity to produce.

There is understandable concern over the probability of exporter clubs being formed similar to the oil-exporting group with the risk of supplies of materials being withheld from the market or higher prices being artificially imposed. There are organizations in being in tin and copper and one being formed for bauxite. In theory at least chrome ore and platinum metals appear to be commodities susceptible to such action, although there is a question whether the principal producers are likely to work together. However, for the diversity of reasons cited producers of none of these other minerals have a bargaining position as strong as that of the oil exporters.

Non-Mineral Strategic Materials

With respect to strategic materials of animal or vegetable origin, if the existence of stockpile goals is taken as a criterion then it should be noted that only twelve non-mineral commodities remain on the stockpile list. The aggregate value of such materials held in the stockpile is approximately \$200,000,000—or about 3% of all stockpile holdings—and of this more than half is represented by the stockpile of natural rubber.

Among the non-mineral commodities once listed as strategic materials but no longer included in the stockpile are such items as long-staple cotton, silk, hog bristles and palm oil. In the case of these commodities, and others eliminated, substitutes have been developed which, at least from the military point of view, no longer warrant their being classified as strategic.

The basic difference between the mineral commodities and the vegetable and animal products is, of course, that the latter are definitely renewable. The lead time required to develop production varies widely, with natural rubber undoubtedly being the most critical in view of the length of time required to cultivate a rubber tree to the point that it will yield product. One difficulty that has been experienced in maintaining stockpiles of the animal and vegetable products is that, unlike minerals, their usefulness deteriorates in storage. Therefore it is necessary to rotate stockpile holdings by replacing the commodities at periodic intervals.

However, the mining industry has a profound interest in the natural rubber stockpile. Tires for off-the-road trucks used in ore haulage in open-pit mines are made from natural rather than synthetic rubber. A shortage of these huge tires, which range up to 8 feet in diameter, could have a critical influence on the level of mineral production, particularly of iron ore, copper and coal.

What to Do About Bottlenecks

Bottlenecks occur in strategic materials when demand exceeds available supply. The imbalance can be cured if demand is reduced or supply increased.

In times of military emergency demand can be reduced by restricting production of non-essential goods. This is acceptable to the public if the emergency is clear and present—as was evident in World War II. It was less acceptable during the Korean and Vietnamese Wars. Substitution of readily available commodities for scarce ones in the production of military and essential civilian goods is also helpful in a military emergency. But these measures cannot be applied if the strategic material is primarily of import origin, if substitutes are not available, and if the demand is primarily for military or essential civilian products.

In peacetime the public is unlikely to accept imposed reduction of demand through rationing or other restrictive measures. Controls and a free economy do not mix well except at times of overwhelming emergency.

Hence increases in available supply—rather than reduction of demand—are the most practicable solution to materials bottlenecks in a democracy. In the case of essential mineral commodities, expansion of domestic supplies is now being retarded by environmental controls, by prospective elimination of the depletion allowance in the tax field, by proposed new legislation on surface mining, by restricted access to mineral exploration of public lands, and by other measures. The mining industry has seen little evidence of the re-orientation of governmental attitudes implicit in the Mineral Policy Act of 1970. Far from being encouraged to expand output, the industry feels it is being challenged to survive. Neither in the Administration nor in the Congress does there appear to be willingness to create an atmosphere that will stimulate investment in new facilities.

A healthy U.S. mining industry is possible if it is profitable, supported by the government, not shackled with restrictive regulations and price controls, and if tax incentives recognize the high degree of risk in mining and exploration and that huge amounts of capital are needed to undertake major expansion of production.

But expansion of domestic supplies cannot eliminate all bottlenecks. The original concept of the stockpile was sound and remains so. Why has public sentiment blown hot and cold in regard to stockpiles?

Perhaps a large part of the difficulty has arisen from the needlessly complex way in which stockpile targets have been set. As indicated earlier, these targets have been established on the basis of varying assumptions, related to changing military concepts which in turn are based on opinions—not facts. The frequent, unexplained changes in objectives have given rise to the suspicion of political manipulation.

There is a simpler way—an automatic way—of determining stockpile goals—one that will eliminate debatable assumptions and make it less likely that suspicions of political manipulation will arise.

The proposal would be to base the targets on actual experience as to U.S. dependence on imports over a recent period—say the three most recent years. It is clear that the country needs a comparatively larger stockpile of a commodity which is almost entirely obtained from outside sources than it needs of a commodity largely produced within the nation's borders.

Purely as an illustration of how such a program might operate, the mining industry through the American Mining Congress has suggested:

(a) For commodities in which dependence on imports is equivalent to 75 to 100% of total needs, the economic stockpile target should be two years' imports at the rate of, say, the three most recent years.

(b) For commodities in which dependence on imports is equivalent to 50 to 74% of total needs, the economic stockpile target should be one year's imports at the rate of, say, the three most recent years.

(c) For commodities in which dependence on imports is equivalent to less than 50% of total needs, the economic stockpile target should be six months' imports at the rate of, say, the three most recent years.

Degree of dependence on imports would be up-dated at periodic intervals and therefore would automatically reflect technological developments and shifting ratios of demand. Thus objectives would accommodate themselves when the availability of domestic supplies changes.

To remove the stockpile from political considerations, an independent stockpile corporation should be formed, funded by the U.S. government, but with an independent board similar to the Federal Reserve banking system, the Export-Import Bank, and similar agencies. The board should include representatives of producers, consumers, labor and the public serving for a term of office long enough to insure minimum political pressure.

Such a stockpile operation could not only safeguard military requirements but could also buffer adverse effects on the economy of disruptions in materials flow in peacetime. This in effect would be the economic stockpile recently proposed by Congressman Bennett of Florida.

One should not minimize the hazards implicit in such an operation. The methods of accumulating the stockpile are important, lest in the very act of acquisition the normal flows of materials are disrupted.

Obviously a first step will be to analyze the existing stockpile holdings in relation to the targets that would evolve from the use of a simplified approach such as has been suggested. In his report of April 29, 1974, to the Congress on commodity shortages, the Comptroller General has suggested a freeze on further disposals of stockpile materials. This appears a wise precaution to take while a new program is being evolved.

Conclusion

In conclusion, this country is vulnerable to bottlenecks of strategic materials. With few exceptions this is not due to lack of world reserves of such materials. Part of the difficulty arises from the relative inelasticity of supply, since production of minerals and to a lesser extent some vegetable products cannot be expanded rapidly when demand suddenly accelerates. Geographical concentration of the production of certain strategic materials also poses a threat of potential bottlenecks.

These bottlenecks may not only prove harmful to U.S. military strength but can also impede economic development. No single remedy can be found that will eliminate all risks of vulnerability to insufficient supplies of materials. However, a properly managed stockpile, insulated so far as possible from political influences, still provides a valid form of insurance against shortages of strategic materials.

PANEL II

U.S. NATIONAL SECURITY AND THE IMPACT OF MULTINATIONAL CORPORATIONS

Panel Chairmen: Dr. C. Fred Bergsten, The Brookings Institution, and Dr. Theodore Moran, The Brookings Institution.

Panelists: Mr. John B. Henry, Staff Member, Subcommittee on Multinational Corporations, Senate Foreign Relations Committee.

Dr. Ronald Muller, Department of Economics, American University.

Captain John F. Tarpey, USN, Faculty, Industrial College of the Armed Forces.

Rapporteur: Colonel John G. Pappageorge, USA, Strategic Studies Institute, Army War College

U.S. NATIONAL SECURITY AND THE IMPACT OF MULTINATIONAL CORPORATIONS

C. Fred Bergsten
Theodore H. Moran
The Brookings Institution

Introduction

Strategists for national security policy, like strategists for military policy, can frequently be accused of preparing to fight the last war. This paper will make far more anachronistic proposals. We shall argue that U.S. security policy must include steps toward foreign direct investment which will help avoid the kind of global economic and political fragmentation that, through scrambles for natural resources and trade conflicts, were an important cause of both the First and Second World Wars.

A new element has been added to the conduct of international affairs—multinational corporations, larger and more powerful than international investors in earlier eras, which in the pursuit of their own self-interests can serve or disserve diverse national interests, both home and host. This paper will argue that a peculiar configuration of international economic and political power encouraged U.S. multinationals to spread in the post-World War II period, but that with the transformation of that milieu—that is, with the demise of the postwar international economic order, and the closely related decline of U.S. political and economic hegemony—multinational corporations will not themselves recede. Rather they take on an independent life of their own in a world of increasing nationalism, raising the possibility of new tensions among governments and hence new issues for U.S. national security policy. U.S. policy toward direct investment remains, nevertheless, oriented toward the global environment that has largely disappeared.

As multipolarity replaces the rigid power blocs of the Cold War, two trends will define the context within which national security policy will have to be formulated for the 1980's: first, a continuing growth in international economic activity; and second, sustained political concern in individual nations about the consequent increase in international vulnerability. While such an environment will offer a welcome relief from many aspects of Cold War confrontation, it will pose two relatively unfamiliar kinds of security threats. First, there is a threat that nationalism could, under certain conditions, tear the international system apart in a manner reminiscent of the interwar period. Second, there is a threat that, after long periods of enjoying the benefits of increasing economic interdependence, the United States will find that it has lost the sovereign ability to react in a crisis to protect vital national interests. We have had a brief taste of what these threats could be like during the recent "energy crisis" in the aftermath of the October war in the Middle East.

Foreign economic policy will be central to how these threats might, or might not, develop. The activities of multinational corporations will, in turn, be central to the foreign economic policy of the United States and other countries. Alternative policies toward direct foreign investment, therefore, will have to be considered an important component of U.S. national security policy.

I.

What environment should be hypothesized as a setting for the formulation of national security policy for the next decade, and how do the activities of multinational corporations affect U.S. national interests in that environment?

One striking aspect of the evolution of inter-state relations in the post-World War II era has been the growth in the level of international economic activity. In the past two decades world exports increased by more than 500 percent to a level of more than \$300 billion per year. Moreover, the average annual rate of growth for trade has been 10 percent during this period, a figure substantially greater than the corresponding growth rate for global income.

The role that multinational corporations have played in the evolution of the international economic system has been dramatic. The book value of U.S. direct investment abroad has risen to at least \$80 billion, with an estimated commercial value approaching \$200 billion. The output of U.S. firms abroad is more than \$200 billion per year. The rate of increase for U.S. direct investment is more than double that of trade—or over 20 percent per year. The rate of growth of direct foreign investment for other major industrial countries (starting from a much lower base) is substantially steeper than the U.S. rate. In the United States, an important and rising share of all after-tax corporate profits derives from foreign investment, and that share exceeds 50 percent for a number of the largest U.S. companies. One quarter of all U.S. exports, more than \$18 billion, moves between parents and their foreign subsidiaries. Most sectors of the U.S. economy are heavily affected by the investment and production decisions of U.S.-based multinational corporations.

The predominant assessment of this trend on the part of observers in the United States has been optimistic. The liberal vision of international harmony associated with the doctrine of free trade has received economic and political reinforcement from the spread of direct investment. Through an ability to scan the globe for production and marketing opportunities, multinational corporations work to maximize the world's economic welfare through the rational allocation of the earth's scarce resources. As a consequence, they contribute to eliminating the poverty and misery that have always been central to disputes among nations.

Furthermore, the increase of international economic activity will create constituencies of both producers and consumers whose interests would be damaged by conflict among states. Hostility among nations would be perceived as increasingly costly by significant groups within those nations. And those groups, in turn, would exert domestic pressure to moderate any incipient disputes. Viewed from this perspective, the cross-penetration of direct investment—as Europeans and Japanese, for example, increasingly invest in the United States in the wake of the devaluations of the dollar—is a hopeful sign. It will result in a transnational alliance of corporate executives who will not tolerate a deterioration in political relations. These executives are “the new globalists,” the “advance men” of “economic one-worldism” who “wear the robes of diplomats.”¹ The push of Western investment into the Soviet Union and Eastern Europe will work the same effect. From both a political and an economic perspective, then, multinational corporations are viewed as a force for creating the kind of peaceful international system that was once hoped would accompany free trade.

But writers who focus on the contribution of multinational corporations to the evolution of inter-state relations have offered the vision of a pacific world order built upon a profound political transformation. The distinguishing characteristic of multinational corporations is their ability to mobilize resources in many countries and coordinate the activities of diverse subsidiaries according to a common strategy.² This element of strategic control, combined with the size of the multinationals, constitutes a challenge to the sovereignty of the countries where the corporations locate their operations—that is, it limits the ability of national governments to control their economies as they would like. They challenge of “sovereignty at bay,” according to this view, however, will have important constructive rather than disintegrative effects on the international system.³ This will come about for two reasons:

First, nationalistic reactions on the part of individual countries will generate economic losses that are unacceptable domestically. Once shown the benefits of an international economy epitomized by the cross-penetration of multinationals, societies will not be willing to do without the products and technology that multinationals bring. Thus, “national economies,” as Robert Gilpin characterizes this view, will find that they “have been enmeshed in a web of economic interdependence from which they cannot easily escape.”⁴

Second, nationalistic reactions on the part of individual countries will be ineffective. Single states cannot by themselves control the activities of multinationals. They can erect barriers and obstacles that impede the effective functioning of the multinationals within their own borders, but other countries will then open doors to the firms with resulting disadvantage to “hosts” who take the nationalistic route.

Thus, the challenge of “sovereignty at bay” must lead to new levels of inter-state cooperation. It must provide a stimulus for global coordination of national policies that combines the efficiencies of international investment with the desires for sovereign regulation.

“The logical and eventual development of this possibility,” comments management consultant John Diebold, “would be the end of nationality and national governments as we know them.”⁵ By itself, “the nation state is a very old-fashioned idea and badly adapted to serve the needs of our present complex world,” according to George Ball, former Under Secretary of State and currently senior partner at Lehman Brothers.⁶ The only way we can maximize the benefits that multinationals have to offer is by “modernizing the world’s political structure.”

The increased level of international economic activity, then, spearheaded by multinational corporations, points in the direction of the obsolescence of the nation-state.

II.

The main objection to this projection of international expansion and international conciliation is that there has been a parallel counter-trend during the past two decades—namely, the renewed importance of nationalism in the ordering of inter-state relations. Since the mid-1950s, the nation-state has proved to be obstinate, not obsolete.⁷

The re-emergence of the nation-state as the power unit of importance in international relations has been aided by three factors.⁸ First, national governments since the Second World War have assumed new responsibilities for the stability and welfare of the lives of their citizens. No major industrial government today could accept an unemployment rate above 10 percent, as the British did in the 1920s to force the pound sterling to return to its pre-World War I rate of exchange, nor rely on private charity to care for the unemployed during a Depression, as Herbert Hoover did in 1930. Besides providing for the territorial integrity of the state, governments are expected to provide for problems of unemployment, housing, health, regional development, and environmental protection. Thus governments seek to manipulate external economic forces to promote their internal policy goals; to do so, they have moved from the crude use of export subsidies and competitive devaluations in earlier periods to much more subtle devices, such as industrial and regional policies with attractive incentives for foreign firms.

Second, the obverse of international economic expansion has been international economic vulnerability. The interdependence reflected in a growing level of international economic transactions has meant an increased domestic sensitivity to fluctuations in economic activity beyond the nation-state border.⁹ Thus, national governments are continually tempted to try to mitigate the adverse effects on them of international economic forces. The historical focus has been import barriers; the contemporary focus includes export controls (to fight domestic inflation) and, along with the incentives to foreign investors mentioned in the last paragraph, growing exercise of control over the activities of those investors.

Third, the decline of Cold War confrontation has meant that the cost of nationalism in security terms has been reduced. The maturing of nuclear deterrence has reduced the likelihood of direct threats to the territorial integrity of the major industrial powers (though it may raise the threat to smaller countries). The loosening of the hold of ideologies has opened the possibility of new configurations in world politics. Although the "balance of terror" and the "threat of aggression" must remain the top priorities in determining the national interest, their importance has declined relative to the attention given issues of economic welfare and security.¹⁰

This is the environment in which national security threats will have to be defined for the next decade—an environment in which U.S. hegemony is no longer pervasive, international economic issues are increasingly important and increasingly politicized, and common concerns about military security can no longer bind coalitions of nations together when fundamental economic tensions are present. In such a world, national security policy will be dictated to a greater and greater extent by national economic considerations, and not vice versa.

One of the primary objectives of this resurgent nationalism in both developed and developing host countries has been to exert control over the activities of foreign investors, without losing the benefits which they bring by deterring them altogether. This desire for control has not, however, proceeded in the direction of supranational agreements that maximize the freedom of multinationals to rationalize global production according to their own strategies. Rather, the challenge of "sovereignty at bay" has led host governments, alone and in concert with each other, to develop sophisticated methods of forcing or enticing foreign corporations to place their economic power in the service of national goals.

There are five non-exclusive explanations why the reassertion of sovereignty over foreign investors has not taken the form of international cooperation projected in the liberal vision.

First, in a world where multinational corporations are global oligopolies exercising substantial discretion in the conduct of international activities, tight nationalistic bargaining on the part of individual states to get multinational corporations to serve their goals may not involve any welfare losses at all.

Second, in a world where multinational corporations are global oligopolies exercising substantial discretion in conduct of international activities and other host countries are exerting pressure to get multinational corporations to serve their goals, a state that does not push as hard as it can to serve its own national interests may be a loser.

Third, with the postwar recovery of Europe and Japan and the development of many countries in the Third World, economic security and the exercise of sovereignty are perceived to be worth potential losses in efficiency.

Fourth, the gains to a single state from a nationalistic policy may be greater than its share of any resulting loss in global efficiency.

Fifth, that joint regulation of multinationals at some level other than global (e.g., manipulation of multinationals by producers of a particular raw material to strengthen a cartel vis-a-vis consumers, or regional groups such as the Andean Pact and the European Community) may better reconcile sovereignty and economic interests for some states than the worldwide coordination of national policies.

In a politicized, nationalistic environment, what are the national security implications of conflicting national claims on the use of the power of multinational corporations?

III.

The unambiguous if often tacit support for the spread of multinational corporations traditionally reflected in U.S. policy has been founded on the premise that foreign investment would certainly have a beneficial impact on the United States and would usually have a beneficial impact on both home and host countries. It has included two implicit assumptions, however: that important conflicts among the interests of constituent countries where the multinational was located would not be likely; and that, when conflicts did arise and U.S. national interests were at stake, American investors abroad and foreign investors in the United States could be made responsive to U.S. interests and not to the interests of other countries at U.S. expense. In the new environment projected in the previous section, both of these assumptions have become extremely dubious.

What determines whose national interests a multinational corporation will serve when a trade-off has to be made?

Conventional wisdom in the United States and abroad has been content and resigned, respectively, with the belief that the nationality of the owners and personal loyalty of the managers of a multinational would determine whose interests the corporation favored in a crunch. On this basis, governments in the Third World have forced foreign companies to take on local partners to see that local interests were protected, and governments in the developed countries created "national champions" to compete with U.S. multinationals in the hope that this would ensure responsiveness to domestic needs.

This was a comfortable belief for the United States. U.S. multinationals, despite proud pronouncements to the contrary, have remained overwhelmingly staffed and directed by Americans. A survey of the 71 U.S. corporations with largest foreign activity for the *Columbia Journal of World Business* (1966) showed that while total foreign employment in the companies reached 33 percent only 1.6 percent of the top management (30 of 1,815 executives) was non-American.¹¹ A separate study (1967) of 1,029 directors of companies in the Harvard Business School's sample of 187 U.S. multinational enterprises revealed only 19 foreigners, of whom 14 were Canadian or British.¹²

But the doctrine that the nationality of the owners and the personal loyalty of the managers could make a significant difference in the behaviour of the multinationals has always been dubious. And it certainly received a rude shock in the midst of the October War in the Middle East: no more than a radio announcement of King Faisal's decision to impose an oil embargo on the United States was enough to propel Frank Jungers, chairman and chief executive officer of Aramco, to order a cut-back larger than the percentage demanded by Faisal—just "for good measure," according to *Fortune*.¹³ "The important thing," according to Jungers, "was to give the immediate image of being with the government, not trying to fight it." Here was the American management of what had been a wholly owned subsidiary of Socal, Texaco, Exxon, and Mobil¹⁴ snapping to obey the first hint of another sovereign's wishes.

Saudi Arabia also asked Aramco to provide a rundown of petroleum products derived from Saudi oil that were being sold to the U.S. military from refineries around the world. Aramco passed this request on to its four owners in the United States, who delayed two days before even informing the Defense Department of the request. Charles Peyton, the president of Exxon International, testified that he subsequently responded to the Saudi demand for military data out of fear that if he had not the Saudi government might have retaliated by preventing the U.S. companies from meeting "worldwide supply commitments" elsewhere.¹⁵ In other words, potential damage to Exxon's non-U.S. operations was sufficient to motivate corporate behaviour that may have constituted a threat to U.S. military preparedness.

We make no effort here to assess whether the reaction of Aramco supported or undermined U.S. national interests during this critical period. If one assumes that Saudi Arabia was in total control of the situation, no alternative oil arrangements would have been likely to better assure U.S. supplies and the United States at least continued to benefit from Aramco's share in the oil rents and—perversely—from the fact that it was a U.S. firm which complied so quickly! In addition, the ability of the oil multinationals to allocate OPEC output and hence obviate any impact of the embargoes probably avoided major international political problems, including rupture of the Common Market and even of Atlantic relations if the Dutch had been forced to seek oil from supposedly friendly governments.

But it was dramatically apparent that multinational corporate strategy was in fact a calculation of relative advantage *to the corporation, even where the vital interests of the home country were concerned*, in which the discretionary power of the owners or managers might be of minor significance. What was important was the structure of pressures on the corporation, and not the nationality of the owners or the patriotism of the managers.

The corporate calculus of how to survive (at a minimum) in a nationalistic world, and how to maximize profits over the long run, must include a judgment about the extent of vulnerability to the demands of the assorted governments (both home and host) where the company operates as well as judgments associated with classical comparative advantage. The judgment about the extent of vulnerability will be dictated by two considerations. First, as competition in a particular industry increases (whether from domestic or foreign competitors), the clout of any given multinational declines. Hence the opportunity costs of making nationalistic demands on investors decline for a *country* while the opportunity costs of not responding to nationalistic demands rise for the *investors*. Second, as the distribution of assets and earnings of a particular multinational corporation spread, the opportunity costs of not responding to the demands of *hosts* rise in comparison to the opportunity costs of not responding to the demands of the *home* country. With the spread of multinationals and the increase of competition then, the strength of the host countries to make multinational corporations serve local objectives has gained at the expense of the home countries. In the calculation of relative advantage, multinational corporations have no choice but to give greater attention to the claims of host countries on the use of their oligopoly power.¹⁶

The assumptions on which American policy has been based made sense only so long as host country capability of replacing or doing without the resources of foreign investors was low, international competition was weak, and the U.S. market was the primary orientation of the companies calculating the trade-off among national interests. When U.S. multinationals operated under such conditions, for example, their discretionary power in how they ordered their operations abroad was great, and the potential of the U.S. government to force or entice them to exercise that discretion on behalf of the home country far exceeded the corresponding leverage of host governments.

In natural resources, U.S. companies could exercise *de facto* sovereignty over pricing and marketing decisions, and the United States government could effectively influence them to give preferential access to U.S. consumers during periods of shortage.¹⁷ In manufacturing, U.S. companies could arrange inter-affiliate sales as they chose, produce only as much local value added as they found most profitable, and maintain their research and development facilities where they wished. If Chile did not like the terms demanded by Anaconda, or through Anaconda by the United States government, it had few options but to forego the services of that investor. If France did not like the behavior of IBM, or the restrictions placed on IBM by the United States government, its only option was to try to duplicate at great cost its technological capability.

As soon as any of these conditions began not to be met, however, the ability of the U.S. government to require U.S. investors to be responsive to the interests of the home country when that conflicted with the interests of host governments diminished. Increasing competition has reduced the discretion that U.S. multinationals have at their disposal. Increasing multinationality has reduced the concern of American investors for any individual market—including the United

States market. At the same time, the diffusion of technology and the consequent development of host country capabilities to imitate, duplicate, or hire services previously under exclusive control of U.S. multinationals has augmented the bargaining power of the host governments.

IV.

We shall consider five areas in which the changing structure of pressures on multinational corporations poses challenges to the national security of the United States. Both the degree of the potential threat and the ability of the United States government to devise effective policies to counter the threat vary greatly in different situations. Nevertheless, as the United States has become only one of several potentially powerful national claimants on the power of multinationals, the American government alone has by and large neglected to explore policy options for serving its own welfare or ensuring its own security. Worse still, where the United States has given attention to potential threats associated with the activities of multinational corporations, it has been in inverse order of importance.

1. *Composition of domestic skills and productive facilities*

Are the shifts that are taking place in the composition of the national work force and the composition of those industrial activities physically carried out within American borders posing a potential security threat to the United States?

On the one hand, the path of comparative advantage for the United States appears to head away from the kind of economy best equipped for rapid reaction to a conventional military confrontation. As both trade and foreign investment accelerate the movement of the U.S. economy toward service, financial, and research activities, the cost and speed for conversion to wartime industrial mobilization increase. At the same time, a rising reliance on imports of heavy machinery, electronics, and chemicals (whether from foreign suppliers or from subsidiaries of U.S. multinationals) could constitute an intolerable risk in certain kinds of situations. (A subsequent section deals with the dependence on foreign sources of raw materials.)

On the other hand, the size and diversity of the American economy make it unlikely that the United States will lose the capability to respond to a military crisis, or to convert as national security requires within an acceptable time frame. The U.S. economy is moving toward services anyway, and in fact that process has already run much of its course: foreign trade and investment have, and will, push it only marginally further. In addition, much of the increased U.S. dependence on imports of manufactured goods represents intra-industry specialization, which could be fairly rapidly replaced by domestic production. It is almost inconceivable in the intermediate future that we could (through direct investment) "export" the industrial capability needed to respond to any likely military threat, or undermine significantly the growth rate of our economy.

In the past, "national security" has frequently been used as a protectionist argument to give ill-advised subsidies to inefficient domestic industries at the expense of the U.S. taxpayer or U.S. consumer, although it has been the explicit rationale for import controls only of oil. If "national security" should become a slogan with sufficient support to justify increased protectionism of this kind in the United States, it could stimulate chauvinistic reactions in other countries and a trend

toward exclusive commercial blocs. This, in turn, could have important negatively reinforcing feedback effects on the level of tension and rivalry in the international system.

Thus, a sustained movement toward protectionism in the United States to preserve a comprehensive manufacturing sector probably constitutes more of a security hazard for the evolution of inter-state relations than the likelihood of an intolerable change in the composition of domestic skills and productive facilities, or aggregate growth, brought on by U.S. foreign investment.

However, at some point, as particular U.S. industries decline, it may become necessary to make national judgments about the minimum size and structure of output which need to be maintained domestically for security reasons. What size and shape steel or electronics industry is needed on this criterion? It thus makes sense to establish criteria and set up a screening mechanism to determine where there might be unacceptable security costs to the United States if particular industries were physically located outside our borders.

2. *Foreign investment in the United States*

Will the purchase of industrial facilities or raw materials in the United States by aliens ("the Arabs," "the Japanese") constitute a threat to U.S. security?

The short answer is "no," if only because the United States can always levy export controls on the output of such investments, whoever owns them. In addition, such investments are almost certain to remain fairly small in the context of our overall economy, all the more so given the obvious desire of foreign investors to avoid concentrations of holdings that would be subject to public (and hence political) criticism and possible expropriation.

Nevertheless, for industries with sensitive technology or significance for national defense (e.g., Arabs buying up, but not exploiting, coal and shale oil), government regulation of foreign equity participation on a case-by-case basis may become necessary, along lines parallel to those just mentioned for outgoing direct investment.

3. *Extraterritoriality*

To what extent will it be possible for the United States government to affect the behavior of the foreign subsidiaries of U.S. multinationals in accordance with U.S. foreign policy preferences, without doing greater damage to U.S. foreign policy interests by the adverse reactions triggered in making the attempt?

As the exposure of multinationals to host country influence increases, as discussed in this paper, the companies are forced to adopt a policy of decentralized obedience to sovereign directives.¹⁸ The ideological and moral content of such directives are as diverse as the countries where they operate: shipping trucks from Argentina to Cuba, manufacturing diesel engines for armored personnel carriers in South Africa, setting up photo identification systems for the secret police in Korea, programming personal data files on dissidents in the Soviet Union¹⁹—and selling nuclear reactors from France to Iran.

As this paper has argued, with the increase of competition among international investors, the ability of the United States government to inhibit undesirable activities on the part of host countries through directives to U.S. parent companies will decline. With the increase in the proportion of earnings generated abroad, the resistance of those parent companies to U.S. directives will increase. If the United States wants to maintain the option of exercising extraterritorial influence through U.S. multinationals, an effective policy will require: 1) a mechanism for distinguishing those cases where international competition would in fact render such efforts useless,²⁰ and 2) an assortment of carrots and sticks specifically constructed to motivate compliance by the parent in those cases where the efforts could be effective. Even in cases where extraterritorial control could be effective, any decision to actually do so would have to trade off the gains from the action against the costs of the reaction by the host country of such an intrusion of U.S. action.

4. *Control of Technology*

Will the proprietary knowledge of U.S. multinationals continue to be produced in the United States and its spread controlled from here?

Traditionally the "transfer" of technology via American investment has been a very limited process in which foreign subsidiaries used what processes the parent thought should be "sent" from R&D headquarters in the United States. In the course of the 1960s, however, high technology multinationals began to set up laboratories in centers of research across the globe, first to monitor local innovations and then to create substantive R&D facilities.²¹ Parallel to this has been the shift to organizational structures within international companies that minimize the impediments to the inside flow of technical information among constituent units in various countries.²² Consequently, the compartmentalization of technology along lines drawn by national boundaries is becoming less possible. A large U.S. corporation with main-line R&D facilities in Palo Alto, Hamburg, Kyoto, and São Paulo and a world trade organization structured to speed discoveries from one application to another throughout the system cannot easily be segregated according to geography.

As a working hypothesis, U.S. planners will have to expect that both innovation and (more importantly) on-line development of new processes will become more balanced throughout multinational corporate systems. Consequently, new kinds of vigilance will have to be exercised to see that the results of sensitive governmental research are not put to use in areas for which they were not intended—a task of decreasing effectiveness.

5. *Access to raw materials*

What are the national security implications for the United States of the fact that direct ownership of foreign sources of raw materials does not guarantee preferential prices or volumes of the output to the home market of the investor?

As recently as ten years ago²³ the doctrine that direct investment did ensure access to output was accepted as gospel, largely because it was true. U.S. corporations did exercise effective sovereignty over marketing of the production of foreign subsidiaries. Whether by appeals to the national loyalty of the owners or by threats of adverse action in the case of non-compliance, the

U.S. government could expect that U.S. investors would give customers in the home country treatment at least as good as customers elsewhere, and, in a crisis, preferential treatment.

Now that it is evident that exporter governments themselves have the potential to control the marketing of their own domestic output either directly or through multinationals forced to demonstrate the exactitude of their stewardship, it is worthwhile to examine in detail the relationship that public support for direct foreign investment by American natural resource companies has to the national interests of the United States.

Any danger of resource scarcity that looms on the horizon is not a danger of natural scarcity, but rather a danger of artificial scarcity—that is, that those countries that export raw materials can create effective producer cartels. If they can, this generates two kinds of threats to importing countries: first, the threat that the importing country will find general market power wielded against itself and all other consumers; second, the threat that the importing country will find market power wielded selectively against itself in comparison to other consumers.²⁴ Direct investments by American companies does not serve to moderate either of these threats except insofar as it undermines the ability of the exporting governments to collude to restrict production. In many respects, however, the system of direct equity investment reinforces rather than undermines the ability of exporting governments to collude and thus exacerbates the problem.

This results from characteristics of natural resource investment that give the investor few options other than responding to host country demands in a way that strengthens the market power of the host government. The typical project in petroleum, natural gas, copper, bauxite, iron ore, or nickel requires the lump-sum commitment of several hundred million dollars to bring the well or ore-body on-line. Once the project is successful, however, it is especially vulnerable. It produces an undifferentiated product with a relatively stable (and diffuse) technology. Unlike manufacturing investors, natural resource investors cannot rely on complex marketing skills or changing technology to resist the threats of nationalistic host governments. Nor can they credibly threaten to withdraw. Rather, the predictable investor strategy in raw materials industries is to try to defend sunk capital through meeting host country demands for higher revenues—at the expense of final consumers and the home country tax collector. This has been the history of corporate behavior in the petroleum and natural gas industry. It appears to be the course that the bauxite industry is taking. It has been tried in copper. Only the extent of international competition in the particular industry and the availability of substitutes has proved effective in moderating the impact of this strategy—not the nationality of the companies or the dictates of the home government.²⁵

In this way the oligopoly power of the private investors is put at the service of host country producers. Both investors and exporting governments have a common interest in limiting the entry of competition from new sources that would weaken their power to exercise general market power vis-a-vis industrial consumers.

Both in “normal times” and in a crisis, then, multinational corporations have no alternative but to obey the dictates of the host in wielding market power selectively against consumers. If a cutback of production ordered by some hosts creates general market scarcity, they must serve the hosts’ preferences in rationing the remaining output. They cannot even reroute output to soften the impact of an embargo without the implicit consent of those producer governments who must supply what is to be rerouted.

To serve the U.S. interest in a safe and efficient supply of natural resources for itself and other consuming countries (to avoid a damaging scramble among them for limited supplies), what is needed is a policy towards investment that undermines rather than supports the formation of producer cartels and removes American multinational corporations from being hostages to the demands of nationalists. The most promising policy option to accomplish these objectives is a shift from support for direct equity investment in natural resources to support for the transfer of business skills via management or service contracts whose fees are either fixed in advance or are linked to the volume of output. The objective is to make corporate profitability depend not on the final price of the output but on the amount (and scarcity) of the services rendered. American companies would be given incentives to compete to supply development skills for new projects to host governments rather than competing for higher revenues directly. Their motivation should be to maximize the number of projects in which they could manage production. They would have no interest in restricting the development of new sources. Indeed their offer of ever new opportunities for hosts to expand output would undermine attempts to establish stable market shares in a producers' cartel by encouraging both new entrants and more output by existing producers, for which there is almost always some internal pressure in any event. It would be still better if *all* home countries would adopt such a structure of incentives for the foreign investment activities of their natural resource firms.

Some natural resource companies are already moving in this direction. Capital for new development is being raised in the form of debt from fabricators and consumers, or from financial intermediaries using long term contracts as collateral. Not only does capital supplied in the form of debt rather than equity avoid the tensions associated with foreign "ownership" of the subsoil, but it makes possible disputes much more easy to settle. Conflict about the legitimacy of having to repay international loans is much less likely to occur and much less difficult to arbitrate in a manner acceptable to both sides than conflict about compensation for nationalized properties.

Current U.S. policies toward direct investment, however—tax incentives, investment guarantees, and diplomatic support—have slowed corporate experimentation with non-equity arrangements.

U.S. policy should be restructured to encourage the shift out of direct U.S. ownership of foreign subsoil rights, and the futile diplomatic defense thereof, to be replaced by the transfer of corporate skills in the form of service or management contracts.²⁶ The emphasis should be on diversifying the number of suppliers and the sources of supply—not on increasing subsidies to the small number of direct investors whose overseas operations, once established, render them hostage to the producing government; nor on supporting the principle of direct ownership through economic or diplomatic pressure in a futile attempt to shore up a supply system that no longer is able to respond to national needs.

At the same time U.S. policy should be structured to give a more equal array of incentives for domestic exploitation of resource deposits than now exists. In general, however, the thrust of U.S. policy should be aimed at creating a more diversified and competitive global supply system rather than trying for an illusory domestic "self-sufficiency." This priority should be maintained for four reasons.

First, U.S. self-sufficiency as a normal procurement pattern would result in high consumer cost, mounting loss of depletable resources, possibly environmental damage while only pushing American vulnerability a little further into the future, and losses in our international competitive position if our major competitors went on taking their chances with lower priced imported oil.

Second, programs aimed at domestic self-sufficiency are likely to be much more expensive in all the dimensions mentioned above, according to the best available estimates, than alternatives of creating stockpiles or on-line reserve capacity.²⁷ Stockpile policy and the maintenance of excess capacity should be subjected to a rigorous review in the light of current needs, and stockpiling for purposes of economic, as well as directly military security should begin immediately.

Third, domestic self-sufficiency may only shift the burden of having to deal with potential monopoly power inward—making, for example, the necessity of dealing with a copper workers' strike, a coal miners' strike, a corporate refusal to expand natural gas production, or a steel industry insistence on higher prices the source of intolerable political tension.

Fourth, a self-sufficient United States abandons the other industrial powers (and resource-poor developing countries) to their fates at the hands of international suppliers whose powers of creating artificial scarcity will remain as the United States tries to withdraw from world markets, or invites them to exchange their present dependence on present suppliers for dependence on the United States (in areas where this is technically possible, e.g., energy) via a gigantic "Project Independence for All Consumers Together." Either outcome would almost certainly create major new political tensions between the United States and its major allies

V.

The stake that U.S. multinationals have in operations outside of their home country and their need to respond to the demands of host countries has forced them to balance competing claims upon their oligopoly powers to an extent not contemplated during the era of U.S. economic and political preponderance following the Second World War. Concern about the interests of the United States has become only one of many determinants in the formulation of corporate strategy. And the power to respond to U.S. national interests, when the will is present, has drastically declined in many industries.

This evolution in the determination of multinational corporate strategy has not taken place as the nation-state has faded into oblivion before the on-rush of supra-national political institutions. Rather, the global diffusion of investor activities is creating new capabilities for national rivalry and international competition precisely at the moment when the political and economic system built after the Second World War is undergoing a fundamental transformation. Confronted with the opportunities as well as the threat of multinational corporations, nation-states are learning to flex their sovereignty, not to bury it.²⁸

This paper has argued that the United States must begin to develop the machinery to evaluate which consequences of this evolution in the determination of multinational corporate strategy pose the most serious threats to U.S. national security and, among these, which consequences are unavoidable (due to the increase in international competition) and which leave some discretion to

corporate management. In those cases where national interests are threatened and corporations can exercise some discretion, the United States should develop policy tools to influence that discretion in ways that serve U.S. welfare and security. In the case of the shift in the balance of power from home governments to host governments for the determination of the behavior of natural resource companies, however, more is required. Precisely because investors do not have the margin of discretion sufficient to ensure dependable sources of raw materials, a policy of trying to mount pressure on corporate management would not be an effective approach to this problem. Instead, this paper has argued that the United States must try to restructure the way in which scarce corporate expertise is transferred to develop new supplies of natural resources to try to moderate the effect of the shift of power to the exporting countries directly.

The threat in natural resources is serious not only because a politically inspired embargo could, under certain circumstances, hinder the ability of the United States to respond adequately in a crisis. It is equally serious because of the effect it will have on the evolution of inter-state relations outside of the United States. Whether or not there is a relatively efficient and dependable system of world supply for raw materials will determine the tension level within which other aspects of the interaction among states will take place.

Resource shortages and supply uncertainties do not have to be projected as the "cause" of war at some point in the future. It is enough to point out that they will increase hostility and instability among nations in six crucial issue areas:

- 1) the prospects for U.S. relations with Europe and Japan. A scramble for resources under conditions of serious scarcity will weaken domestic support in America for our traditional allies and hasten the departure of U.S. troops from Europe under conditions in which the need for their continued presence might be rising.

- 2) the likelihood of increased efforts by important middle powers, e.g., Japan and possibly Germany, to beef up their own military capabilities to buttress them in that scramble.

- 3) the probability of Third World regional disputes, such as in the Persian Gulf or Southern Africa or even Latin America, and the attendant risks that the major powers might be drawn in.

- 4) the possible disappearance of the symbolic prohibition against territorial annexation by the traditional Great Powers in the Third World or, at the least, the establishment of neo-colonialist spheres of influence.

- 5) the relative influence of the Soviet Union as a resource supplier and technology buyer in Europe and Japan.

- 6) the prospects for continuing Soviet control over politico-economic life in Eastern Europe, as its role of supplier of oil and other raw materials to its Comecon partners becomes even more vital to them.

This discussion leads us into a consideration of the impact of multinational corporations on overall U.S. relations with traditional adversaries (mainly the USSR), traditional allies (Western Europe, Canada and Japan) and the rest of the world (primarily the developing countries). The state of these relations obviously affects U.S. national security.

It is quite possible that multinationals will prove to be a useful element in reducing tensions between the United States and the Soviet Union, and perhaps even more so in "building bridges" to the smaller countries of Eastern Europe. (There seems no prospect at present for the entry of multinationals into Asian Communist countries, so they are disregarded.) Much of the long-run success of detente does in fact turn on creating interdependencies of the type which now play such a central role in relations between the United States and Western Europe, and multinationals can again play a major role in the process. And it is less likely that the firms will over, the longer run, create tensions in Communist countries of the type which they have created elsewhere, because of the much greater clarity defining their roles from the outset: minority ownership and complete state control of the overall economic milieu in which they operate.

Furthermore, the development of new natural resources in the Soviet Union and Eastern Europe with American capital and technology would increase competition, increase availability, and increase diversity of suppliers for Western Europe, Japan, and the United States. No consumer country will want to become dependent upon the Soviet Union as its sole supplier of raw materials. But there is more security for all consumers in a world in which Soviet (among other) resources are on-line than in a world in which they lie underdeveloped.

Perhaps the main risk to U.S. security from the entry of multinationals into the communist world is the asymmetrical nature of the political pressures which they will subsequently bring to bear in home and host countries in trying to maintain and expand their roles. Local pressure by American multinationals will of course have little effect in the USSR as long as it remains a closed society. But, as we are already seeing, the skillful use of their domestic influence in the United States could persuade both the executive and legislative branches to extend economic and political concessions to the Soviet Union. One cannot, of course, judge in the abstract whether such "concessions" would prejudice some aspects of U.S. security, or whether in any case they might still have a net positive impact on the national interest. But the entry of multinationals into the Communist world is likely to set such domestic pressures on the U.S. policy process in motion, and thereby raise at least a potential cost to set against the benefits to U.S.-Soviet (and U.S.-East Europe) relations.

The impact of multinationals on U.S. relations with its traditional allies is much more ambiguous. They have been a source of major friction in the past, in several different senses. Japanese refusal to let U.S. firms invest was an important element in the cumulation of frictions between those two countries in the late 1960s. France and Canada have exhibited a more schizophrenic approach to the penetration of U.S. investors. On the one hand, they have been anxious to check the role of U.S. firms and limit the extension of U.S. law to local subsidiaries. On the other hand, they showed anquished reactions when U.S. firms or U.S. government policies threatened to *slow* the flow of investment. This range of problems, however, has been handled without posing an enduring threat to our traditional alliance structures.

For the future, the discontent caused by "*le defi Americain*" is likely to decline in importance. The advanced industrial countries are now sufficiently self-confident that any fears of "domination" by multinationals will be increasingly confined to fringe groups. The United States has learned the futility of trying to apply its law to subsidiaries incorporated in other countries. The firms themselves have learned to accept the dictates (and, often, accompanying favors) of host countries and the high cost of appealing to the U.S. Government "to defend its rights" abroad. And the increasing doubts in the United States as to whether foreign direct investment by U.S. firms serves U.S. national interests (economic or political) renders such defense less likely even if it were called for.

Indeed, the analysis presented in this paper raises the possibility of a new source of international conflict over multinationals between the United States and individual host countries, including some in the NATO alliance. Host countries have become increasingly sophisticated in dealing with multinationals; the question, as we have seen, is no longer whether they want foreign investment, but how they can maximize their share of the returns from it. Many of these countries are thus levying increasingly explicit requirements on resident firms: job quotas, export quotas, capital inflow and reinvestment requirements, etc. as well as the traditional (and far less important, economically) focus on using local managers and selling shares locally. The firms usually accommodate quite well to these requirements, especially as tax and other incentives are often offered as inducements.

The problem with this trend, which is far along in Canada as well as in a number of developing countries (including such important ones for U.S. interests as Mexico and Brazil), is not the burden it imposes on the firms but the burden it may impose on the United States as the balance of *national* economic advantages deriving from foreign direct investment shifts from the home country (the United States) toward the host countries. Jobs can be shifted. Exports and capital flows can be shifted, with important effects on balance-of-payments positions, exchange rates and hence real welfare.

It is still of course true that both home and host countries can benefit from some investments. Some aspects of all foreign investments, such as their balance-of-payments effects, are zero-sum games; one country's gain must represent another country's loss. Hence overt host-country policies to improve their share of the benefits can reduce U.S. benefits from particular investments, and a sufficiently widespread adoption of such policies could become significant even in terms of U.S. economic aggregates.

Even more important politically, such policies will be *seen* as having such effects by groups within the United States which are disadvantaged by them, such as organized labor. It will be much easier to mount a drive for U.S. legislation to restrict foreign investment by U.S. firms if it can be demonstrated that the overt actions of foreign governments are causing such investments to hurt the U.S. economy, than it was for the first such effort by the AFL-CIO in the early 1970s (the Burke-Hartke bill) when they had to base their case on spurious aggregate statistics and isolated cases.

In short, we may be seeing the beginning, in the foreign investment field, of the same kinds of efforts to seize national economic advantage at the expense of other countries which developed with such disastrous effect in the trade field in the interwar period. To be sure, the jousting for investment benefits is unlikely to become as extreme, short of the development of deep world economic distress such as occurred in the 1930s. But serious tensions between governments could well develop from the trend if it continues for long, and add a new source of strain to U.S. relations with numerous countries. The obvious answer is to learn from the lessons of trade policy and create new international rules to deter policies of this sort, provide compensation for countries which are hurt by such policies, and channel the disputes which will certainly arise, whatever rules were agreed, into established forums to limit the degree to which they become major bilateral political issues.

VI.

This paper has argued that multinational firms are likely neither to undermine the economic basis of U.S. national security nor to foul U.S. foreign policy in any direct sense. Hence there is no case for general proscription of their foreign investment.

At the same time, we have argued that, in the new international milieu, these firms are unlikely to effectively promote U.S. foreign policy. They must in fact be viewed as increasingly independent ("transnational") actors on the world stage, reacting pragmatically to serve their corporate interests but reconciling as best they can any conflicts among the policy approaches of the several sovereign states in which they operate. Hence there is no case for positive U.S. support for foreign direct investment.

However, foreign direct investment is a highly differentiated phenomenon. Individual investments, both outgoing and incoming, could have adverse effects on the U.S. economy or even more directly on U.S. security, e.g., by exporting an entire segment of the electronics industry. Hence it would be prudent to create a new mechanism, as exists in virtually every other country, which would enable the U.S. Government to delay, limit or even prevent individual investments which appeared likely to hurt the national interest. One approach would be to create an escape clause for investment, modeled on the traditional escape clause for relief from injury caused by imports, through which the U.S. group (including the U.S. Government) which felt itself injured or threatened by a particular investment could petition the Government for relief therefrom, with final decisions based on hearings in which all interested parties could fully present their cases.

In addition, within this overall framework of policy neutrality with a mechanism to consider appeals against particular investments, we have discovered several areas where specific initiatives would promote the security of the United States. We have a major national interest in assuring ourselves access to raw materials at a reasonable price, which could be promoted by policies which encouraged quite a new role for U.S. companies in the extractive industries abroad. New international rules to govern national policies toward incoming foreign investments are needed to head off potentially serious disputes, which could threaten the alliance (and other) relationships of the United States and hence indirectly affect our security.

Changes from present policy could thus both reduce the likelihood that the activities of multinationals could damage U.S. national security, and increase their positive contributions to it. A new policy toward multinationals should thus be included in any comprehensive agenda for U.S. national security.

Footnotes

¹William I. Spenser (President, First National City Corporation). "The New Globalists" (Address before American Chamber of Commerce, Frankfurt, Germany, September 6, 1972), quoted in Samuel P. Huntington, "Transnational Organizations in World Politics", *World Politics*, Vol. XXV, no. 3, April, 1973.

²Cf. Jack N. Behrman, *Some Patterns in the Rise of Multinational Enterprise*, (Chapel Hill, N.C.: University of North Carolina, Graduate School of Business Administration, Research Paper No. 18, 1969), and *National Interests and the Multinational Enterprise: Tensions Among the North Atlantic Countries*, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970); Charles P. Kindleberger, *American Business Abroad*, (New Haven: Yale University Press, 1969).

³This phase comes from Raymond Vernon, *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises*, (New York: Basic Books, Inc., 1971).

⁴Robert Gilpine, "Three Models of the Future", in C. Fred Bergsten and Lawrence B. Krause, *International Economics and World Politics*, a special issue of *International Organization*, forthcoming.

⁵John Diebold, "Multinational Corporations. . . Why Be Scared of Them?", *Foreign Policy*, No. 12, Fall, 1973, p. 87.

⁶George W. Ball, "The Promise of the Multinational Corporation", speech to the New York Chamber of Commerce, reprinted in *Fortune*, June 1, 1967, p.80.

⁷Stanley Hoffman, "Obstinate or Obsolete? The Fate of the Nation-State and the Case of Western Europe", *Daedalus*, 95, No. 3, (Summer 1966).

⁸For an attempt to assess the transformation of the international system, see C. Fred Bergsten, *The Future of the International Economic Order: An Agenda for Research*, (New York: D.C. Heath, 1973), ch.1.

⁹For an assessment of this trend, but limited to questions of monetary policy, see Richard Cooper, *The Economics of Interdependence: Economic Policy in the Atlantic Community*, (New York: McGraw-Hill, 1968).

¹⁰Cf. Robert O. Keohane and Joseph S. Nye, "World Politics and the International Economic System", in *op. cit.*

¹¹Kenneth Simmons, "Multinational? Well, Not Quite", *Columbia Journal of World Business*, Fall, 1966.

¹²Cited in Raymond Vernon, *Sovereignty At Bay*, *op. cit.*, P. 146.

¹³Allan T. Demaree, "Aramco is a Lesson in the Management of Chaos", *Fortune*, February, 1974.

¹⁴Aramco was forced to sell 25 percent of its equity to the Saudi government in 1973, a percentage that is in the process of being boosted to 60 percent.

¹⁵*Business Week*, April 27, 1974, pp. 45-46.

¹⁶A multinational corporation that seeks to maximize some objective other than long term profits—e.g., the glory of France or the political influence of the United States—is still governed by these considerations. To the extent that its behavior differs from that of a self-interested economic institution, however, it may have to survive and grow through subsidy.

¹⁷During both the Second World War and the Korean War, the Allied governments unilaterally established price ceilings for raw materials (copper, lead, zinc, iron ore, nickel, molybdenum, manganese, tungsten, chromium, rubber, bauxite) produced by their companies abroad. Typically, host country governments were not consulted about what that level should be, although the private companies were. This resulted in substantially lower prices to consumers than would have to prevail. The companies were partially

compensated by direct subsidies, and in some special contracts by higher-than-ceiling prices for domestic output. The exporting countries were not.

At the beginning of the Vietnam War President Johnson tried to achieve the same result by "jawboning" the companies (rather than declaring a national emergency). He achieved a measure of success in putting pressure on companies to hold down the prices of imported raw materials, but could no longer get the exporting governments to go along. In copper, for example, the U.S. producer price was held around 36 cents per pound while the open market price on the London Metals Exchange climbed more than 100 percent above that. Chile, however, would not allow its copper to be sold by Anaconda and Kennecott at the US producer price. The US government managed to persuade President Eduardo Frei to sell 100,000 tons to US fabricators at 36 cents per pound in 1966 in return for a \$10 million loan from AID at less than 1 percent interest. The US government also managed to force Anaconda to pay \$3.5 million in extra taxes on this shipment to compensate the Chileans for their loss.

By the end of 1966, however, the system of trying to keep the price of imported raw materials low by pressure on the investing companies proved increasingly ineffective. Exporting governments showed that they, rather than the foreign companies or the consumer governments, exercised sovereignty over marketing of their output.

See Robert F. Campbell, *The History of Basic Metals: Price Control in World War II*, (New York: AMS Press, 1968), Percy W. Bidwell, *Raw Materials: A Study of American Policy*, (New York: Harper and Brothers, 1958), and Theodore H. Moran, *Multinational Corporations and the Politics of Dependence: Copper in Chile 1945-1973*, (Princeton: Princeton University Press, 1974).

¹⁸The largest and most mature multinational corporations are adopting decentralizing organizational structures that may be more responsive to local demands, but the argument advanced here does not depend upon such organizational changes. Cf. Louis Wells, "The Multinational Business Enterprise: What Kind of International Organization?", in Robert O. Keohane and Joseph S. Nye, eds., *Transnational Relations and World Politics*, (Cambridge, Mass.: Harvard University Press, 1973); and John M. Stopford and Louis Wells, *Managing the Multinational Enterprise: Organization of the Firm and Ownership of the Subsidiaries*, (New York: Basic Books, 1972).

¹⁹All of these activities have been discussed as open possibilities at two conferences (1973-1974) on corporate responsibility and multinational enterprise, sponsored by the Council on Religion and International Affairs. The proceedings of the first of these conferences will be published as *The Nation-State and the Multinational Corporation in Lesser Developed Countries (Special Emphasis on Latin America)*.

²⁰In the case of Argentine demands on Ford to ship trucks to Cuba, to example, the Peron government threatened nationalization if Ford did not comply and Fiat reportedly stood ready to take over the nationalized facilities with a management contract.

²¹For the beginning of an attempt by IBM to rationalize its worldwide laboratory location, see R.A. Bennett, "IBM in Latin America", in the volume cited in footnote 19; G.R. Williamson, "IBM in the FAR EAST", to be published in a subsequent volume by the Council on Religion and International Affairs; and statement of Jacques C. Maisonrouge, President of IBM World Trade Corporation in Hearings before the Group of Eminent Persons, United Nations Economic and Social Council, New York City, September 11, 1973.

²²"Multinational Enterprise and National Security", in Raymond Vernon, ed., *The Economic and Political Consequences of Multinational Enterprise: An Anthology*, (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1972).

²³And the Council of the Americas, representing over 80 percent of all U.S. investment in Latin America, advised the President of the United States as recently as November 1973 that the primary national interest that America has in supporting private foreign investment is that "private foreign investment... assures access to supplies of raw materials." Council of the Americas, *Recommendations on U.S. Foreign Economic Policy Toward Latin America*, November 1, 1973, p. 1.

²⁴C. Fred Bergsten, "The Threat From the Third World," *Foreign Policy*, (Summer 1973).

²⁵Equally important, investors can no longer defend themselves effectively either by promising new expansion programs in the particular host country or by threatening to expand elsewhere. That would mean persuading their directors to sink hundreds of million of new dollars in an environment where new natural resource concessions are renegotiated to bring into line with mature concessions with increasing rapidity.

²⁶Service or management contracts promise to be a much more acceptable form of reconciling economic nationalism and foreign investment than the celebrated proposals for phase-out or systematic divestment. The latter involve the tensions of compensation form foreign ownership. They involve substantial risk for the investor. And they do nothing to ensure the home market of access to supplies.

²⁷ For an analysis of the cost of domestic self-sufficiency in energy (petroleum, natural gas, coal, nuclear power, and synthetic fuels), see Policy Study Group of the MIT Energy Laboratory, "Energy Self-Sufficiency: An Economic Evaluation" in *Technology Review*, vol. 76, no. 6, May, 1974.

²⁸ Samuel P. Huntington, "Transnational Organization in World Politics", *World Politics*, Vol. XXV, no. 3, April, 1973.

PANEL III

THE FUTURE OF ENERGY: ANOTHER LOOK

Panel Chairman: Dr. Edward J. Mitchell, Graduate School of Business Administration, University of Michigan; Project Director, National Energy Project, American Enterprise Institute.

Panelists: Dr. James McKie, Dean, School of Behavioral and Social Sciences, University of Texas.

Mr. Joel Darmstadter, Senior Research Associate, Energy and Minerals Program, Resources for the Future.

Dr. James W. Hanson, Chief Economist, EXXON Corporation.

Rapporteur: Lieutenant Colonel Donald O'Shei, USA, Strategic Studies Institute, Army War College.

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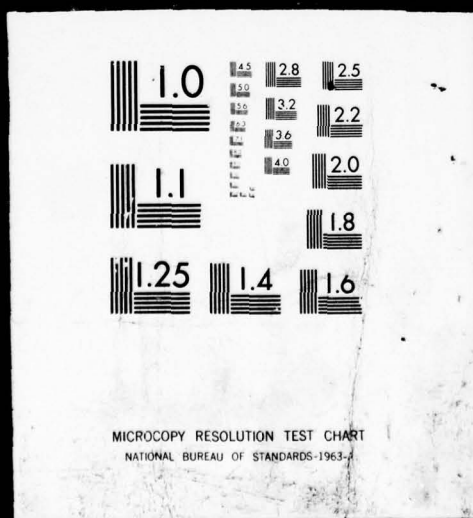
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THE FUTURE OF ENERGY: ANOTHER LOOK

Dr. Edward J. Mitchell
University of Michigan
and American Enterprise Institute

I. Energy Myths

1. The Shortage is the Problem
2. The Doomsday Thesis: We Are About to Run Out of Energy
3. Americans Have Suddenly Become Energy Gluttons
4. The Oil Companies Contrived the Crisis

II. Real Issues

1. Oil Imports and National Security
2. Oil Crisis and World Monetary Arrangements
3. Natural Gas
4. Synthetics

I. Energy Myths

According to recent opinion polls two-thirds of the American people believe that the energy crisis was contrived by the major oil companies. It is also reported that only one in twenty-five Americans believe that the Arab nations had an important role in creating the crisis. In view of this it is perhaps best to begin this paper by clearing the air of some myths about the energy crisis.

Myth #1. The Shortage is the Problem.

If you ask people, including many energy "experts", what the energy problem is about you will commonly hear that it is about current shortages or future gaps between energy needs and energy supplies. In other words the problem is defined as a shortage or a gap.

The trouble with these views is that shortages and gaps are not acts of nature that "happen to us"; they are creations of men, the consequences of deliberate policy choice. Neither smaller supplies nor larger demands imply shortages. In fact, if we never found another barrel of oil or cubic foot of natural gas, or never mined another ton of coal, there would be no necessity for shortages.

This observation follows from the fact that at some price the energy market will clear. As long as either less is demanded or more supplied as prices increase, there is some price at which the energy market will clear.

Government policymakers have three options in any market: 1) a market-clearing price; 2) a lower price and shortages, or 3) a higher price and surpluses. There are free market policies, shortage policies, and surplus policies. The government is now choosing shortage policies in the field of energy. In the fifties governments (state and federal) elected a surplus policy for oil. In the sixties they elected a surplus policy for oil and simultaneously a shortage policy for natural gas. In 1965 we had at least 25 percent surplus capacity for producing crude oil, while through the sixties we had a shortage of natural gas reserve additions on the order of 30 to 60 percent. While these policies may present problems for some consumers and producers -- namely the consumers who are not allocated all they want of the limited supplies and the producers who must hold surplus capacity or inventories -- they are not the problem for the government; they are the policies of the government.

There is nothing necessarily irrational about choosing a shortage or a surplus policy over a free market policy. There is always a group which benefits from either policy chosen. A rationing procedure must always be established to allocate the shortage among consumers or the surplus among producers. The power to influence these rationing decisions is of considerable value. Thus, politicians, bureaucrats, Washington lawyers, and the communications media are beneficiaries. As a practical matter, the benefits accruing to this group may dominate the decision-making process.

Sometimes rather broad-brush reasons are given for the choice of a shortage policy. For example, it is argued that a low price energy shortage policy will help reduce inflation. By fighting inflation one can only mean maintaining the purchasing power of the dollar. Yet, the shortage

policy only favors those, who having been allocated their full amount, are able to purchase this at less than free-market prices. Those favoring this policy use the Consumer Price Index to support their thesis. However, the Index merely reflects the value of the enhanced dollars. Based on this, shortage policies then tend to be implemented during periods of inflation as short-term emergency measures.

Surplus policies, such as the crude oil surplus of the fifties and sixties, seem to be blessed with greater longevity than shortage policies. It is much easier to calculate the distribution of benefits and injuries on the supply side. Businessmen can readily measure in dollars and cents the effects of different prices and different allocation formulas. The difficulties of calculating benefits and injuries to consumers of shortage policies cannot be understated. We know that if the price is set only a little below the market-clearing level the number of consumer beneficiaries will be large but the benefits to each one will be small. As the price is lowered, the individual benefits increase but the number of beneficiaries shrinks as the supply decreases.

An important exception to the tendency for shortage policies to be short-lived arises from the fact that there may be substantial benefits from a shortage policy to suppliers of competing products. If there are close substitutes for a particular product, a shortage policy for that product increases the demand for the substitutes. This is what has happened in the natural gas market. Prices far below the market-clearing level for natural gas are creating artificial demands for liquified natural gas (LNG) and synthetic gas from coal, both of which cost double the probable market-clearing price. Strong opposition to deregulation of natural gas prices in 1972 Executive Branch discussions came only from those associated with LNG interests. The principal Senate advocate of stricter and more extensive price regulation of natural gas is from the state with the largest bituminous coal resources.

Thus, while there is little likelihood of a long-run shortage policy on energy, there is a good probability of deliberate shortage policies for specific forms of energy. Many new forms of energy, such as synthetic fuels from coal, have a chance for commercial success only if shortage policies are imposed on competing cheaper sources, such as conventional oil and natural gas.

Myth #2. The Doomsday Thesis: We Are About to Run Out of Energy.

Abandoning shortage policies will mean higher prices. For awhile these prices will be higher than would have existed had free market policies been chosen all along and higher than the level that will prevail in the long run. Supply in today's market is geared to prices expected under a shortage policy. And, unfortunately, it takes several years for energy supplies to respond to price. In a free market everyone can have all he wants at the market price. There are no gaps or shortages. The true measure of scarcity, therefore, is price, and the measure of long-run scarcity is long-run price. The prices we will observe immediately when the free market is reinstated will overstate the long-run scarcity of energy.

The question that seems to concern many is whether energy is getting so scarce that severe adjustments will have to be made in the way we live. The concern is not focused on the scarcity of oil refining or electric power generating capacity, both of which have been giving us problems recently. We know these are basically manufacturing activities and are subject to no more scarcity

in the long run than plants that produce automobiles or sewing machines. The concern is about the raw material for these plants – oil, natural gas, coal, and uranium. Are we depleting these natural resources so fast that we will run out before long? Many think so.

If the age of an idea contributes to its validity then the doomsday thesis has a lot going for it. Doomsayers have been consistently vocal, but they have also been consistently wrong. For example, America has had less than a dozen years' supply of oil left for one hundred years. There are two reasons why these forecasts have been so wrong in the past and why they are so irrelevant today. First, there is the popular tendency to focus on proved reserves, which always appear frightening small. Proved reserves in the oil and gas producing industry are essentially what are called inventories in other businesses. The fact that oil men hold only ten or fifteen years supply of oil under the ground should be of as much concern to us as the fact that shoe stores keep only thirty days' supply of shoes on the shelf. To hold more would be unprofitable for the businessman and uneconomical for society. When we do find places, such as the Middle East and North Africa, holding fifty years' supply, we are witnessing either a business error, or an expectation of enormous growth of deliveries, or an extremely low cost of holding inventories, or some combination of the three.

When policymakers go beyond proved reserves to the use of estimates of potentially recoverable reserves, they often misinterpret the figures. The ultimate quantity of oil under the ground is (as Professor Adelman tells us) unknown, unknowable, and most important, uninteresting. The pertinent questions are: how much do we have to give up to get an extra barrel (or billion barrels) of oil? How much is that barrel worth to us? If it is worth more than it costs, and costs less than alternative energy sources, we should use it; if not, we should leave it in the ground. When we decide to stop using oil, it makes no difference whether we have left in the ground an infinite amount, a trillion barrels, or a barrel and a half.

The focus on the very long run by the doomsayers is good strategy. Bad forecasting is rarely dismissed because it is bad; instead, people demand a better forecast. But economists and businessmen understand that no one knows what lies ahead fifty years and that the costs of searching for highly uncertain answers greatly exceeds their value. More important, there is no reason to believe that we can significantly improve our forecasting accuracy in the future. Changes in tastes, technology, and resource discoveries are so unpredictable as to make ten or twenty-year forecasts little more than crystal ball gazing.

Myth #3. Americans Have Suddenly Become Energy Gluttons.

While costs of producing energy have changed over the years, there is no evidence that they have changed so quickly or so dramatically as to bring about the current scarcity. If the supply side is not to blame, what about the demand side? Statistics I have developed show a significant acceleration in the growth of energy consumption between 1965 and 1970 as compared with the 1960 to 1965, or 1955 to 1965. A more rapidly rising demand for energy might have caused the crises.

The evidence does not support this thesis. Normally, an exogenous increase in the rate of demand growth would imply rising prices or at least less rapidly falling prices. The fact exists that

real energy prices were falling through the fifties and the decline accelerated continuously through the sixties right up to the middle of 1973. Real energy prices fell 3.1 percent from 1950 to 1955, 3.7 percent from 1955 to 1960, 6.5 percent from 1960 to 1965, and 8.1 percent from 1965 to 1970. In all, real energy prices fell by about one-fourth between 1950 and the middle of 1973.

This price pattern implies that it was not so much exogenous shifts in demand that spurred consumption, but rapidly falling prices inducing consumers to purchase more energy. In short, energy was becoming more and more of a bargain compared to other consumer products and so consumers bought more.

Myth #4. The Oil Companies Contrived the Crisis.

The question here is whether oil companies behave like a cartel, collectively setting prices and production, or whether they behave like competitors, simply doing their best to make profits in the face of market and governmental forces beyond their control.

There is no systematic body of evidence showing that the oil industry is cartelized. There is considerable evidence that the industry is competitive. First, the industry is not highly concentrated; it is not dominated by a few firms. The average market share of the four largest firms for all U.S. manufacturing industries in 1966 was 39 percent. In 1972 the four largest domestic refiners had less than 33 percent of the market, and the four largest domestic crude oil producers had 31 percent of the market. In 1968 the four largest natural gas producers had 25 percent of the interstate market. Most manufacturing industries are more concentrated than the petroleum industry.

Second, the industry is not particularly profitable. One characteristic of a monopoly would be excess or above-normal profits over a long period of time. I measured the profitability of petroleum companies between 1953 and 1972 and reported in my testimony before the Special Subcommittee on Integrated Oil Operations of the Senate Interior Committee and compared them with the profitability of the Standard and Poor's 500 stocks, a broad based index. My main conclusions were:

(1) American petroleum companies were significantly less profitable than the S&P 500 over the 1953 to 1972 period. Indeed, not one of the 21 American petroleum companies equalled the S&P 500's rate of return.

(2) The eight companies charged by the Federal Trade Commission with monopolizing the industry earned an average rate of return on 12.1 percent, more than 20 percent below the S&P norm for the 1953 to 1973 period.

Perhaps the most dramatic distinction between the behavior of a competitive industry and that of a cartel can be found by comparing the experience of the world oil market when it was dominated by seven oil companies (from 1947 to 1969) and when it was dominated by a producing national cartel (from 1970 to present). During the earlier period world oil prices fell 65 percent. Since 1970 they have risen 700 percent.

II. The Real Energy Problems: Cost and Reliability.

1. Oil Imports and National Security.

The recent Arab embargo dramatically focused attention on the importance of reliability of energy supplies. However, the reliability problem has been recognized for almost two decades and was reflected in the voluntary oil import restrictions from 1955 to 1959 and a mandatory oil import program from 1959 to 1973. The most careful assessment of the tradeoff between national security and the consumer cost of oil was conducted by the Cabinet Task Force on Oil Import Control in 1969. Although some of the quantitative forecasts made by the task force have turned out to be wide of the mark -- a feature common to almost all such forecasts -- certain basic judgments do seem to stand up. One of them is the determination of precisely what the national security risk is. The task force concluded that: the risks to security from interruptions of oil supply do not, in the main, concern any danger to the functioning of the nation's armed forces. The military needs of the nation in an emergency, even if all requirements had to be procured in the United States, are such a small fraction of total domestic consumption that oil supply for the armed forces is very unlikely to be placed in jeopardy. We are thus speaking largely of security of supply for defense production and for essential civilian uses -- utilities, space heating, motor vehicles, etc. The risk of import interruptions poses a threat to the functioning of the civilian economy which might possibly have a serious effect on the nation in general or on defense industries in particular.

This conclusion is important because it means that the reliability of supply is in fact not a trade-off between the military aspect and the consumer aspect of oil imports, but between one consumer aspect--reliability of supply--and another consumer aspect--cost.

To appreciate how we arrived at our present dilemma let us review briefly the history of U.S. oil import policy.

As late as 1946 the United States was shipping more oil reserves overseas than it was receiving. But this positive balance was never realized again as exports fell from their modest wartime levels, while imports rose for more than a decade without interruption. By 1955 overseas imports had increased four times. Domestic producers were concerned that the substantial price increases earned after the war -- crude oil was selling in 1955 at more than twice its wartime level -- would be washed out by the foreign onslaught and that domestic production would have to be cut back to make room for the indefinite expansion of overseas imports.

The source of these rapidly growing imports was the burgeoning low-cost production of the Middle East and Venezuela. This production potential seemed -- and was -- almost unlimited compared to the size of the market. From 1950 to 1957 the major Middle East producing nations -- Iran, Iraq, Kuwait, and Saudi Arabia -- more than doubled production, and there was far more just waiting for a drill bit. As evidence of this potential, Saudi Arabia has, since 1950, increased production ten fold, and there is still much beyond that.

For U.S. producers there was no remedy for these bleak prospects in the private sector. The only recourse was political; to seek relief from an institution capable of applying coercion -- the federal government. The federal response was, however, not initially coercive. A voluntary import program was set up in the hope that importers would recognize their overall long-term interests -- most importers were also domestic producers -- and cooperate by limiting imports. At first an informal arrangement was set up. This was displaced by a more serious, but still voluntary, regulatory effort in 1957 as new firms kept entering the import business. These "newcomers" also undermined the second voluntary program, as some small companies raised imports rapidly to take advantage of a 50-60 cent per barrel, or 20 percent, differential between delivered domestic and overseas crude. As a result overseas imports rose almost 40 percent over the four-year life of the voluntary programs.

In March 1959 the Mandatory Oil Import Program went into effect and continued until April 1973. The mechanism chosen to restrict imports was a quota fixed as a percentage of domestic production. Obviously there were many possible alternatives: a quota fixed in absolute amount; a fixed tariff varying with the level of imports. Given that a quota was chosen, there was still the choice of how to allocate import licenses. They could have been auctioned to the highest bidders. Instead they were mainly allocated to refiners on the basis of refinery inputs. Economic analysis suggests that the system chosen results in the highest domestic crude oil prices given the proportion of imports to domestic consumption.

If we are to judge the quota program by the extent to which it restricted imports, it would have to be judged a success, at least up until 1967. Overseas imports rose 27 percent in the first eight years of the program. Domestic production rose 29 percent, putting overseas imports in a slightly poorer relative position. Furthermore, almost two thirds of the increment in imports was in the form of heavy fuel oil, which is highly competitive with domestic natural gas and coal, and on which domestic refineries had been cutting back yields for three decades.

By the late 1960s it became clear that either the domestic price or the proportion of imports would have to be allowed to rise significantly in the coming years. Additions to domestic reserves at the prevailing prices were insufficient to maintain the historical degree of self-sufficiency. Texas allowables were rising during the late 1960s. Production at 100 percent was just down the road. Left alone, under the protection of the import quota, prices would have risen substantially. Instead, operating under the constraints of a very different political environment and an atmosphere of concern about inflation, the industry was able to gain only a 25 percent barrel increase in February 1969 and November 1970. At the end of 1972 real U.S. crude prices (deflated by the wholesale price index) stood 5 percent *below* their 1967 level.

Setting the quotas at the difference between domestic demand and domestic production at the available capacity meant that control over price passed from the producing states and industry to the federal government. And federal policy aimed at keeping nominal or money prices relatively stable. Prices were neither as high as the industry would have liked, nor as low as they would have been with no quotas or larger quotas.

In the spring of 1973, due to a combination of higher f.o.b. foreign crude prices and higher tanker rates, the price of delivered foreign crude rose to levels comparable to or even higher than domestic crude (depending on the quality of oil). In these circumstances the quotas served no function except to allocate the foreign crude among importers. The quotas were not keeping oil out, nor were they keeping domestic prices up. Even as allocations of the right to import they were no longer allocating anything of value because the spread between domestic and foreign prices had disappeared.

Faced with the inevitability of shortages in gasoline and heating oil (if economy-wide price controls were to continue), the quota program became a curious anomaly, virtually without reasonable defense. In April the President announced the end of import quotas and their replacement by a system of license fees - a euphemism for tariffs - on crude and petroleum products.

On April 18, 1973, the President signed Proclamation No. 4210 which removed mandatory quotas on crude oil and product imports and substituted a system of license fees to encourage domestic production and refining. The schedule of fees varies between crude oil and products, and between gasoline and other products. No fees were imposed on ethane, propane, butane, and asphalt imports.

The new program drops this tariff and replaces it with the new higher license fees, but also excludes from fees classes of importers that had held quotas under the old program. These fee-exempt licenses accounted for the overwhelming bulk of imports in 1973. In subsequent years the quantity of fee-exempt tickets will be reduced by formula. By 1980 all imports will be fee-paying.

The major issue raised by the new program from our point of view is: How do the levels of protection granted to domestic refiners and producers by the license-fee system relate to the national security or reliability considerations?

The protection offered to a new domestic refinery is 57.75 cents per barrel for the first five years and 42 cents per barrel for the remaining life of the refinery. The value added by a new foreign refinery would be about \$1.20 per barrel. Thus, the protection offered runs close to 50 percent of the value produced for the first five years and 35 percent thereafter. These are high rates of protection by U.S. tariff standards. As a point of reference the Cabinet Task Force on Oil Import Control (1970) recommended a 10 cent per barrel or less than 10 percent level of protection.

But how badly should we want a very high degree of domestic refining self-sufficiency? The concern about refineries in the past fifteen years has been that so many were being built outside the U.S. If that trend continued a question of national security might arise. It is doubtful, however, that the national security requires that *all* new refineries built to supply the U.S. market be located in the U.S. Foreign refinery capacity is scattered over many nations. No one nation would supply an appreciable percentage of U.S. consumption, nor is it likely that any group of nations would conspire to cut off supplies to the U.S. The national security aspect of refining is very different from that of crude supply.

A more modest degree of protection – say, 25-30 cents per barrel for all refineries – would probably assure a high degree of security, yet enable some foreign refineries to compete in the U.S. market and provide independent marketers with wider sources of supply.

The protection offered to domestic producers is 21 cents per barrel in 1975. This is about 3 percent of the current value of domestic or foreign crude. (Again, as a point of reference, the Cabinet Task Force recommended a \$1.35 per barrel tariff. This was the normal differential between domestic and foreign crude prices under the old quota program of the 1960s.)

How much additional domestic production does this 21 cent fee or tariff buy and how much more imported crude oil will be displaced? The answer depends upon the elasticity of supply of domestic crude with respect to price. A reasonable range of elasticities would be 0.5 to 1.0. This means a 1 percent differential in domestic price would result in a one half to 1 percent increase in domestic supply. If we were producing 11.0 million barrels per day in 1980 without this 21 cent tariff, production would jump to 11.3-11.6 million barrels per day with the tariff. If we were importing 10 million barrels per day in 1980, this would fall to 9.4-9.7 million barrels per day. Obviously, a tariff of 21 cents per barrel on crude oil makes little difference in the U.S. import picture or in its reliance on Middle East crude oil.

With recent sharp increases in the world crude prices the United States can be expected to become far more self-sufficient – provided that domestic crude is permitted to sell at free market prices. New crude oil now sells at free market prices, while old crude sells at about half that amount due to price controls. There is considerable pressure in the Congress to control new crude prices as well. Still it takes considerable time for the industry to bring new crude sources on stream. The normal lag from initial exploration and discovery to the consumer is three to five years. Sparsely explored and distant areas such as Alaska will take longer than that. Furthermore, there will be the inevitable delays brought about by environmental suits and normal sluggishness of government in setting up leasing programs on federal lands. We must, therefore, be prepared for an interim period to import oil in large quantities from overseas, particularly from the Middle East and North Africa.

Should a special government program, such as oil stockpiling, be created as a precaution against future cutoffs of imported oil? In a truly free domestic oil market such a program would be unnecessary. Businessmen face the problem of unreliable supplies every day and solve it by maintaining a diversity of sources, spare capacity, and additional inventories. They do this not because they are concerned about the hardships imposed on their customers in the event of a shortfall in supplies, but because it is expected to be profitable. When shortfalls occur, prices will rise and they will be able to profitably sell the additional inventories and produce from their spare capacity. It is the expectation of profit from exploiting these situations of unusual scarcity that makes the holding of added inventories and spare capacity worthwhile.

This approach to the reliability problem has two socially desirable consequences: first, it reduces the impact of any shortfall by providing additional supplies in times of scarcity and thereby reduces the price necessary to meet demand; and second, it reduces the likelihood of a deliberate cutoff of supplies since its impact on consumers is reduced.

For this approach to be optimal two conditions must be met: first, the suppliers in the private sector must have knowledge about the likelihood of a cutoff. Second, the same firms must believe they will be able to profit in case future cutoffs occur – by selling at free-market prices in periods of scarcity. It is safe to assume that the first condition can be met. It is the second condition that has and will be difficult to meet. Many do not support free-market prices during periods of unusual scarcity. The political process tends to choose shortage policies and price controls in such situations, at least for a time. Businessmen know this and therefore hold smaller inventories and less spare capacity than they would under optimal conditions.

To remedy this inadequate preparation for import cutoffs, the government could require importers to maintain extra inventories or spare capacity as a condition of importing. It is not desirable for the government to stockpile oil itself, or even to specify the manner in which importers stockpile oil. It may be cheaper for some firms to maintain spare capacity in some wells and in their transportation system than to store oil in tanks. Closing in some high-cost stripper wells and keeping them on tap for emergencies might prove economical in some cases. All the government needs to verify is that additional oil can be delivered when it is wanted. For the government to hold oil itself, or specify the method that private firms must use to hold oil, would result in unnecessary costs.

It should be noted that this suggested intervention of government is not the result of imperfections in the free market. As is commonly the case, the demand for government action is the consequence of other government actions, actual or potential.

2. The Oil Crisis and World Monetary Arrangements.

Until the past year events in the world oil market had only a minor influence on the U.S. market. The quota policy adopted by federal and state governments effectively insulated the U.S. from developments abroad. The shift after 1969 from a restrictive import policy to a free market and then to a price control policy on old crude oil have made the actions of Middle East producers, especially Saudi Arabia, a dominant influence on the U.S. market.

Three trends have occurred since World War II in regard to the world oil market. First, the concentration of production among major producing countries and major producing companies declined. In 1950 Iran, Saudi Arabia, Venezuela, and Kuwait had roughly 3.3 million barrels per day, or 90 percent of the production of the major foreign, free-world producing countries. By 1969, they had 12.1 out of 21.3 barrels per day, or 55 percent. In 1950 the four leading oil companies – Exxon, BP, Shell, and Gulf had 83 percent of the output of the major foreign, free-world producing countries. In 1969 this had declined to 56 percent. Concentration of production by country and by company fell sharply over the 50s and 60s.

Second, the price of crude in the Persian Gulf fell substantially over the same period. In 1950 the price of Arabian crude was \$1.85 f.o.b. Persian Gulf. By 1969 this had fallen to \$1.22 (or 98 cents when adjusted for changes in U.S. wholesale price index). This was still well above the typical cost of production of Middle East crude of around 10 cents per barrel, but the trend was clearly in the direction of that cost.

Third, a turnaround in world prices began in 1970. By the fall of 1973 Persian Gulf prices had far surpassed controlled U.S. prices, reaching \$7 per barrel by December 1973.

An important device in raising the cartel price was the shift to per barrel taxes. Key members of the Organization of Petroleum Exporting Countries had shifted to de facto per barrel taxes by 1967 (although the taxes were still called income taxes). With adjustment for transportation and crude quality these taxes gave the producing nations a far better mechanism for discouraging competitive production among countries by, in effect, selling licenses to produce at coordinated prices. It is generally agreed that the major oil companies were passive participants in this process.

What is in dispute is why the Persian Gulf price has turned around so sharply in the past few years. According to one view, this turnaround was inevitable because of the increasing cohesiveness of the members of OPEC, the projected dominance of Saudi Arabia (and possibly Iran) in future markets, and the enormous revenues of OPEC members -- particularly Saudi Arabia -- relative to their domestic needs. According to this view, all that could be done was to make an effort to stabilize the situation by international negotiation. Oil prices of five or ten dollars per barrel were a necessary outcome.

Another view has been that there was nothing inevitable about the turnaround in prices.

Whichever view is correct, it is now obvious that the OPEC cartel has the upper hand and is fully exploiting its position.

Since September 1973, Persian Gulf export prices have risen from about \$3.10 to \$8.30 per barrel (as of January 1974). Perhaps the most critical aspect of future oil policy is the path of future prices. Some forecasters see still higher crude prices down the road. On the other hand, some economists, such as Professors Friedman and Houthakker, believe that current prices already exceed the level that would maximize long-run human cartel profits. And one leading oil consultant, Walter Levy, sees serious problems for the cartel in maintaining current prices over the decade. Current prices, they argue would so reduce demand and stimulate supply that cartel revenues would be smaller than if prices were cut back. The large expected response of demand and supply to changes in world crude prices is evidenced by a recent study done for the Organization for Economic Cooperation and Development which show 1980 oil exports to North America, Western Europe and Japan at half the level predicted before the recent sharp escalation in prices. Incidentally, most of the change in oil import demand is likely to occur in the United States since it has far better energy resource opportunities than most other OECD nations.

The possibility of a decline in world crude prices is also taken very seriously by the U.S. Department of Commerce, and thus by implication, by some major U.S. energy companies since the Department generally represents U.S. business interests and puts forward their views in the councils of government. The Commerce Department has recently offered a plan to provide a guarantee of high prices--in the same range as those prevailing now in world markets--for unconventional petroleum substitutes; however, there is hardly a need for a guaranteed price if one is confident prices will not fall.

Predicting the path of future oil prices requires a knowledge of world demand and supply responses to price. In addition, it requires a knowledge of precisely which nations comprise the world petroleum cartel. High cartel or monopoly prices can only be maintained if production is curtailed in the exporting nations. To the extent that an exporting nation does not curtail production, it is not a true member of a cartel in the economic sense, whatever its formal status in international organizations such as OPEC.

During the recent Arab embargo only Arab nations curtailed output. Most other exporting nations continued to expand production. Between September and November 1973, Arab producers reduced production by 23 percent, from 20.5 million barrels per day to 15.7 million barrels per day. This amounted to a reduction of 8 percent in world oil production. In January, 1974 Arab production rose to 17.6 million barrels per day, and it is likely that, with the suspension of the embargo, production will return to the September 1973 levels in all Arab nations, except Libya and Kuwait, which will apparently continue their production at January levels.

The success of the Arab producers in achieving coordinated cutbacks in production for a brief period does not imply that curtailed production can be easily achieved in the long run. And yet that is what must happen if current prices are to be sustained. Oil demand and supply are very insensitive to price in the short run. Over a period of years demand and supply adjustments will necessitate far smaller exports than anticipated earlier, as the OECD study suggests. This is where the question of precisely who comprises the cartel comes in. If the cartel is composed only of Arab nations, then those nations must bear the full brunt of curtailment while "freeriders" such as Iran, Venezuela, Nigeria, and Indonesia derive full benefits. But limiting the cartel to just the Arab nations may still be too broad. Iraq, the third largest Arab producer, did not curtail production during the Arab embargo. Actually, it increased production by 5 percent from September to January. Other smaller Arab producers will find that their curtailment has little positive effect on price and considerable negative effect on their income. While this is very speculative, it could turn out in the long run that the cartel will amount to just Saudi Arabia, Kuwait and Abu Dhabi—and perhaps just Saudi Arabia. If so, the most profitable cartel price will be much lower than for an all-OPEC or all-Arab cartel.

The actions of Saudi Arabia at the Vienna OPEC meeting in March suggest that in the long run the cartel may be rather narrowly based and that the optimal cartel price may be lower than the March 1974 price. A majority of the members of OPEC wanted to raise prices but were dissuaded when Saudi Arabia threatened to resign from the organization. While this disagreement may have been due partly to non-economic considerations, it is certainly consistent with the view that the cartel is narrowly based and that the current price is higher than the price that would maximize cartel profits. The view that "political" as opposed to "economic" considerations may dominate future cartel decisions does not really change the analysis much. Political strength is largely a function of a nation's economic status. And, furthermore, it is not easy to imagine a nation sacrificing its own economic position to achieve political gains, especially if its actions simultaneously enrich other nations at its expense and therefore endow these other nations with greater future political influence relative to its own.

What can U.S. energy policy do to reduce the price charged by the oil cartel? At first glance one might imagine that simply reducing imports would have that effect, but this is not necessarily true. What determines whether a cartel raises or lowers its price is the elasticity of demand it faces. It is not certain that energy policy vis-a-vis the cartel should focus directly on making import demand more sensitive to price, that is, more elastic. To put it simply, if higher prices mean a large drop in revenues from oil exports for the producing countries and lower prices mean large increases in oil revenues, we are more likely to get lower prices if imports are sensitive to prices.

Unfortunately, some present and contemplated policies have the opposite effect. Price controls on domestic oil mean that any increase in the imported oil price is not passed on fully to the consumer. With domestic oil supplying 60 percent of U.S. consumption, an increase of one dollar per barrel in the cartel price means only a forty-cent increase in the U.S. consumer's price. Price controls, by partially insulating the U.S. consumer from the cartel, induce the cartel to charge him a higher price. (Fortunately, most major consuming nations have not adopted this policy.) Furthermore, the lower the domestic price, the smaller will be domestic supplies—and the more high-priced foreign oil we must buy.

The recent proposal of the U.S. Department of Commerce to guarantee high prices on unconventional energy sources by means of government subsidies also will have this perverse effect. To the extent that U.S. domestic supplies are independent of the world price, there is little incentive for the cartel to lower that price.

U.S. oil policy should be founded on the premise that we will buy cheap, reliable foreign oil. This policy would make sense even if we had no influence over the world price, but with U.S. demand becoming a major determinant of the world price, it is doubly important to adopt this approach.

The increased price of crude oil has raised serious concern regarding the present world monetary system. Assuming that the present price of \$9.00 per barrel holds through 1980, the oil importing nations will be paying well over \$100 billion to the oil exporting nations. This amount exceeds estimates made a few months ago at the lower price of \$4.50 per barrel by \$50 billion per year. Questions are then raised with respect to the ability of the monetary system to handle such a massive amount. It becomes necessary to calculate how the large payments affect the oil importing nations' economies and the values of their currencies.

Over time, the sharp price increase will have two major effects: it will greatly reduce demand and simultaneously increase the production of oil and substitute fuels within importing nations. The effects of the higher prices have been immediate on demand. For example, in the U.S. the automobile industry has begun a major transformation from the production of large cars to small cars which has increased gasoline mileage. The American public and private sectors have both initiated a serious conservation effort in response to the higher prices. If this trend is continued, the U.S. Federal Energy Agency anticipates savings greater than 10 percent of our total energy consumption. There have been comparable responses in Europe and Japan.

The effects on the supply side are not as readily calculated. The estimated recoverable quantities of oil and natural gas, which depend on price, are believed to be many times proved reserves. The United States has a considerable advantage over Europe and Japan in terms of available resources. To increase production of domestic resources, the United States must maintain higher prices and institute a more aggressive leasing policy for federal lands.

The United States Federal Energy Agency is working towards increased domestic production in order to achieve self-sufficiency by 1980. Reaching this goal by 1980 depends upon the ensuing political action which would facilitate the development of domestic resources. If all energy imports are eliminated by this date, the United States should become a net exporter of energy by 1985.

The Europeans and the Japanese, on the other hand, do not have the same capability to supply themselves from within. The Europeans must accelerate atomic energy programs, reverse the trend away from coal production, and develop the North Sea oil and gas fields in order to reduce their dependency on foreign nations for energy.

The prediction that U.S. petroleum imports will be over \$100 billion by 1980 does not take into account the response of domestic supply and demand. All factors must be considered in order to analyze the effects on the United States of such massive foreign payments and so we must also take into account the various other changes that would occur on the international trade scene.

The U.S. Department of Commerce has projected the overall consequences of huge oil imports on the balance of payments of the United States, Japan, and Western Europe, taking into account items exclusively relating to energy. Based on an estimated price of \$9.00 per barrel, including merchandise trade and transportation, the basic balance for the United States comes out almost in balance. Western Europe's basic balance shows a deficit of \$11 billion and Japan's shows a \$31 billion deficit.

The oil exporters must seriously consider how they will handle their large revenues. They have three main options:

- 1) They can import more consumer and capital goods;
- 2) They can acquire foreign financial assets; and
- 3) They can purchase real assets abroad.

If the oil exporters choose to spend their oil revenues on increased imports of consumption and capital goods, they will offset the trade deficits arising from oil trade. However, the oil exporters will not be able to utilize the increased merchandise imports effectively and must make serious adjustments. Due to the population size and the primitive state of their economies, they will shift the balance of merchandise trade toward the deficit for the oil importing nations as a whole.

In order to increase exports to oil producing nations, the countries resources must shift from domestic consumption industries to export industries. This will initially involve a reduction of the national income. The increased demand for merchandise exports will not be proportionate to each country's oil imports. This will result in large trade deficits for some countries, while other countries run trade surpluses.

The second option, which involves using oil revenues to acquire foreign financial assets, will affect the individual currencies to varying degrees. The effect on an individual currency will depend upon the selections made among financial assets denominated in various currencies. The largest amount of the financial investment will go into the stronger currencies, with the strength of the currency based on its particular energy trade balance. Although an initially downward adjustment in living standards must be faced, those standards should rise at a faster rate in the future as a result of the "forced" savings imposed by the oil exporters.

The transfer of funds into U.S. dollars can be done either through the internal or external market. Some argue that the external markets are often of greater advantage to the oil exporters since they are not as affected by political changes, such as tax increases and capital controls. However, there is no reason to assume that the internal market could not handle this extra capital. In fact, the Eurodollar market is very capable of both handling large sums of money and channeling it to the countries that are able to use it most profitably.

The third option is for the oil exporters to invest in real assets abroad. This option is, for the oil exporters, presently under way. As recently as March 5, 1974, the Wall Street Journal reported that there are "solid indications that the Arabs are starting to change their traditionally ultra-conservative investment policy to take the plunge into more profitable ventures. Arab institutions are buying real estate in the United States and elsewhere—hotels, apartments, and office buildings." This change to more progressive investments also concerns financial assets: "Arab institutions and private investors are buying and attempting to keep interests in U.S. banks and negotiations are starting for joint ventures, mainly in oil, petrochemical and other energy-related projects, in the United States and other places." At present, this means of recycling the revenues from higher oil prices plays a minor role, but this will probably change in the future.

From this analysis it can be concluded that the dollar, relative to other major currencies, will gain relative to the increases in the price of oil. Clearly, the market must believe this since the strength of the dollar has closely followed the price of oil.

Another issue that has been raised is whether the Arabs would use their massive currency reserves to disrupt the international monetary system. The Arabs, with these large oil revenues, now have significant influence in the international money and capital markets. However, this in not reason enough to assume that the oil producing countries would not behave like other countries and business corporations in the maintenance of efficient currency markets. It would be of greater benefit to the Arab nations to maintain sound money markets and strong western economies.

In the long term, the changes in the relative values of currencies will have to be handled by a system of floating or flexible exchange rates. A system of fixed exchange rates, such as the Bretton Woods system, could probably not handle a shock such as the oil crisis. In fact, if a fixed rate system had existed in September 1973, it most likely would have degenerated into a series of spontaneous floatings by the major countries within a few months.

However, floating rates alone cannot solve short-term financing problems, especially in the case of developing countries. Particularly in response to the limited economic position of these countries, the International Monetary Fund proposed a temporary facility to help finance current account deficits caused by the rise in oil prices.

In response to this proposal, the Iranian government will set aside at least \$1 billion in the coming year to help developing countries. These funds will be allocated as follows: (1) a new oil facility in the fund; (2) the purchase of World Bank bonds; (3) providing finance for a new institution that would lend on concessionary terms to non-oil producing developing countries.

We believe that the problems created by the increase in oil prices can be solved by the present financial institutions. The increased prices, which lower demand and increase supply of oil, will also induce the production of substitute forms of energy and currency markets will be able to contribute to a solution if we are willing to allow relatively free exchange of currencies and movement of capital.

3. The Regulation-Induced Natural Gas Shortage and the Increased Dependence on Oil Imports.

Between 1946 and 1960 natural gas production rose from 4.9 to 13.0 tcf per year. At the same time the American Gas Association's estimate of proved reserves rose from 159.7 to 262.3 tcf. The reserve-production ratio thus fell from 32.5 to 20.1. These movements can be explained in elementary economic terms. Between 1946 and 1960 the real price of natural gas at the wellhead rose appreciably, and expectations during the period were for rising prices. These rising prices were due to the expanding gas markets spurred by the development of long-distance pipeline technology. Rising prices spurred the continuing search for gas and addition to the stock of proved reserves.

The reserve-production ratio desired by producers depends upon the relationship between expected future prices and current prices. Producers will hold more reserves (inventories) if future prices are expected to be high relative to current prices. The fall in the actual reserve-production ratio indicates that it was above that desired by producers throughout the period and that producers did not expand reserves as rapidly as their continually expanding production to lower the ratio to its target level.

The Federal Power Commission (FPC) began, in 1961, hearings to determine cost-of-service broad price ceilings. In the ensuing years it became evident that expectations of higher wellhead prices would have to be revised. The course of prices after 1961 completely reinforced that view as real wellhead prices for new gas fell during the sixties. In 1969 they were below the 1961 level. Whatever the target reserve-production ratio that was being approached prior to 1961, the target or desired level clearly must have been lowered with the advent of regulation. Prices were now

expected to either rise at a lower rate or actually fall. With the target R-P ratio lowered, the rate of decline in the actual ratio accelerated. From 1950 to 1962 the ratio fell by 2.3 percent per year; from 1963 to 1971 it fell at 4.3 percent per year, almost twice the earlier rate.

Thus, for given reserves the price ceiling imposed by the FPC accelerated domestic production. Owners of reserves no longer expected future prices to yield an adequate return for holding reserves. The ceilings also reduced the incentive to explore for and develop new reserves. Despite the fact that future demand would obviously be much greater than current demand, reserve additions were below production every year in the four years succeeding the Southern Louisiana decision (1968). These trends in production and reserve additions could not continue indefinitely without generating a shortage in current supply. The dating of that shortage is not easy, but probably occurred somewhere between 1968 and 1970. More important is the fact that the divergence between actual and free market conditions occurred somewhere around 1963 when the FPC decisions were becoming clear and prices were beginning to level off. The R-P ratio decline began to accelerate.

An attempt has been made by Paul MacAvoy to simulate the gas market for the remainder of the 1970's. He considers three scenarios: (1) deregulation of new contract prices but with a national ceiling that would keep average wholesale prices from rising more than 50 percent over a five-year period—the deregulation option; (2) strict "cost of service" regulation based on historical average costs; and (3) continuation of the current policy of allowing 2 to 4 cent per mcf increases each year—the "status quo" option. Under either "strict cost" regulation, or the status quo, the gas shortage continues through the 1970's. In the strict cost case the shortage grows from 4 trillion cubic feet in 1972 to 8.9 trillion cubic feet in 1980. In the "status quo" case the shortage grows from 4 to 5.3 trillion cubic feet. In the "deregulation" case the shortage disappears in 1977.

From the standpoint of "economic efficiency" these shortages—past, present, and future—represent social waste. Opportunities for exchange between producers willing to develop and sell gas at prices higher than ceilings and consumers, whose valuation of the gas exceeds the price ceilings, are eliminated. Thus production and consumption never takes place. Instead, these consumers must use less fuel or pay at least twice the free market well head price for gas for energy from coal or liquified natural gas imports.

To determine how much natural gas supplies would be reduced by continued regulation and therefore how much greater oil import dependency will be under regulation, five estimates have been made of the response of gas supply to price based on five independent studies or models. These do not include the latest MacAvoy model which has already been discussed.

First, there is the National Petroleum Council (NPC) model, constructed by a team of technicians from several major oil companies for use by the Department of the Interior; second, the Khazzoom model, developed under contract for the Federal Power Commission by Prof. Daniel Khazzoom; third, the Erickson-Spann model, published by two university professors in *The Bell Journal of Economics and Management Science*; fourth, the early MacAvoy model, published in the *Journal of Law and Economics*; and fifth, the Garrett study, a paper on the quantity of recoverable gas economical at various wellhead prices, given by Ralph Garrett of Exxon Corporation to the Potential Gas Committee.

Projections were made directly from the first two models given alternative assumptions about price. These projections were made at the request of the author by the NPC and by the FPC staff in the case of the Khazzoom model. Each of the last three studies leads to an estimate of the price elasticity of gas supply. These elasticities were then utilized separately in a simple supply projection model I constructed. The projections made from these latter elasticities, therefore, depend not only on the elasticities themselves but on my method of projection as well.

For each of these models two cases are considered:

Base Case: Wellhead price of natural gas constant at 24 cents per MCF

Deregulation Case: Wellhead price of natural gas rises to 65 cents per MCF (assumed free market level) immediately and at 2½ percent per year thereafter.

The assumption of a 65 cent gas price after deregulation is consistent with recent uncontrolled intrastate prices, with MacAvoy's recent model, and with the Garrett study. Note that this is well below the costs of imported liquified natural gas and synthetic gas from coal or oil, which generally run \$1.00 to \$1.50 per mcf or more (wellhead equivalent).

While the assumption of a 65 cent wellhead price is useful for comparing the response of supply in different models, it has to be recognized that the response of gas supply will partially determine the price. In a free market price and quantity are determined simultaneously. This means that a model that forecasts a strong supply response to price is also forecasting that a smaller increase in price is required to clear the market. Furthermore, consumption of competing fuels, such as low sulfur residual oil, home heating oil, and coal, will be depressed by the added gas supplies and the price of these fuels will be reduced.

The resulting projections of U.S. natural gas production are shown in the table below.

Table 1.

NATURAL GAS PRODUCTION IN TCF

<u>Base Case</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>
NPC	22.0	18.8	13.5	8.6
CES	22.0	19.9	16.4	14.4
Khazzoom	22.0	18.0	17.0	16.6
<u>Deregulation Case</u>				
NPC	22.0	24.1	26.9	30.5
CES:				
e=.5 (MacAvoy)	22.0	24.0	24.41	25.7
e=.6 (Garrett)	22.0	24.7	26.1	28.2
e=.7 (Erickson)	22.0	25.4	27.8	30.7
Khazzoom	22.0	20.5	27.3	31.5

But the question relevant to this discussion is: How much more natural gas is supplied in the deregulation case than in the base case? Taking each model separately the smallest difference in 1985 between the two options is 11.3 tcf (early MacAvoy) and the largest is 21.9 tcf (NPC).

These are enormous magnitudes. Converting these figures to oil equivalents the smallest difference is 5.5 million barrels per day and the largest is 10.7 millions barrels per day. For perspective, in 1972 total U.S. oil imports were 4.7 million barrels per day and total U.S. crude oil production was 9.5 million barrels per day. Thus if we continue to regulate natural gas on a cost-of-service basis with ceiling prices far below the competitive free market level, we will inevitably become far more dependent upon imports than under a free market natural gas market. Furthermore, these imports, whether in the form of oil or gas, will cost far more than domestic supplies.

4. Synthetic fuels.

Ignorance of market economics appears to dominate discussions of energy R&D policy. Overwhelming political support for further energy R&D seems to derive mainly from concerns about future shortages. But as noted above, shortages are policies and their elimination is trivial. The goal of R&D policy should be to generate new energy supplies that will reduce the price of energy in future markets sufficiently to recover the R&D costs including a market rate of return.

The first criterion of energy R&D policy therefore is that the newly developed supplies cost less than other supplies that will be available in the future. (By and large supporters of R&D avoid this comparison.) Recently, the MIT energy lab examined a number of the most promising new sources of energy.* Based on their findings I would conclude that the only new source of energy that might potentially depress energy prices in the foreseeable future is oil from shale. Synthetic gas appears to cost far more than natural gas would cost in a market where all gas demands were met. This seems to be true for even the most advanced techniques contemplated. Synthetic oil from coal would appear a borderline investment if coal seems unpromising at current price levels.

The MIT study also points out the long lead times needed to develop commercial synthetic production. Within the next ten years synthetic supplies could contribute little to U.S. supplies even if their high costs were offset by subsidies.

*See "Energy Self-Sufficiency: An Economic Evaluation," *Technology Review*, May 1974.

PANEL IV

CURRENCY VALUES & ECONOMIC RESOURCES ALLOCATIONS AS INSTRUMENTS OF FOREIGN POLICY

Panel Chairman: Mr. William R. Grant, President, Smith, Barney & Co.

Panelists: Dr. G. Warren Nutter, Department of Economics, University of Virginia;
Former Assistant Secretary of Defense for International Security Affairs.

Dr. Richard N. Cooper, Provost, Yale University; former Assistant Secretary of
State for Economic Affairs.

Lieutenant Colonel Robert T. Chenoweth, USA, Department of Social
Science, United States Military Academy.

Rapporteur: Major Lee D. Badgett, USAF, Associate Professor of Economics, U.S. Air
Force Academy.

CURRENCY VALUES AND ECONOMIC RESOURCES ALLOCATION AS INSTRUMENTS OF FOREIGN POLICY

William R. Grant
Smith, Barney & Co.

The control of natural resources, economic technology and utilization of capital markets is basic to the influence of the United States in protecting and developing its national interests as well as providing domestic tranquility and world leadership.

What are the current trends particularly as they may differ from the usual extrapolation of the past?

In order to look ahead one must accept the awkward posture of being ahead of the next wave of movement in the affairs of man and nature. The ability to forecast correctly 100% of the time or even 50% doesn't exist; however, the ability to recognize change at an early stage is possible 50% of the time if not 100%.

WHAT ARE THE REALITIES OF CURRENT INTERNATIONAL RESOURCES?

My professional and philosophical background results in a pattern of applying a price to "everything" which I hope will provide a slightly different perspective to this Conference. It will also take me to the periphery of some areas now covered by others in far greater professional detail.

True national wealth should be defined as a store of useful future energy, i.e., minerals, technology, capital and national attitudes. In the case of all factors product prices are essential in determining the economic size of the energy reserve.

Too many observers usually refer to one raw material or another at a specific price and generalize from there. The real question internationally is the natural resource reserves, production, prices and distribution between four classes of countries and how they relate to world integration and survival.

Industrialized Nations with Reserves—ex: U.S., Canada;
Industrialized Nations without (little) Reserves—Italy, France, Japan;
Developing Nations with Reserves—Mideast, parts of Africa, Asia and South America;
Underdeveloped Nations without Reserves—India, Pakistan.

The United Nations in its recent special session on raw materials divided the world into two parts: developed and underdeveloped. Are they interrelated? Typical commodities exported by developing countries are petroleum, coffee, sugar, cotton and rubber. From developed countries, wheat, barley, poultry, pigs, mutton; soybeans, milk, cheese, butter, wine, wood pulp, aluminum, coal, furskins, flax and linseed. Leading imports of developing countries are petroleum products, wheat and rice.

The increase of commodity prices in the last two years virtually erases the adverse commodity/manufactured goods price decline in the 1950s and 1960s. Therefore, price increases that "have stuck" will change relations between countries. Since the U.S. does more business with more countries the future price trends are of unique importance in our relations.

Will commodity prices hold? No, not at current levels, but substantially above the old prices. Current prices of *most* industrial commodities are at levels well in excess of high rates of return on *replacement* facilities. What could this mean? Trade wars, tariff barriers, civil strife. Expectations have again been raised to excessive levels by non-economic politics in newly developing countries as well as in the developed ones. The dangers of excess expectations were outlined in a Fortune article of May 1968 by Max Ways. He forecast that "frustration, cynicism and anger" would develop as the exaggerated levels of achievement were not reached. The concluding sentence was "without prudence, the expectations that have been set in motion may turn into the worst news ever." Subsequent events have proven him to be remarkably and frighteningly correct.

Much of the current international abrasion and dialogue is based on a struggle for resources; a major change from the 1950s and early 1960s when a perpetual infinite supply of all goods and capital was taken for granted. With raw materials in ample supply the lesser developed countries had no negotiating platform. Now that situation is different.

The U.S. can offset temporary disruptions with its natural wealth but countries such as Italy and Japan have a difficult road ahead. Their alternatives are limited but readily analyzable if a knowledge of raw material balance is the basis of approach.

Underneath all the talk and discussion is the search for the world's future political structure evolving around a reassessment of economic relationships now so different.

CAPITAL MARKETS—CURRENT STATUS

When one speaks of a nation's natural resources there is a tendency to ignore capital markets. There has always been the assumption of an infinite supply of U.S. capital mainly because there had been from the early 1930s until 1970. (As a matter of fact I've been unable to find any computer forecasting program that assumes a finite limit on the supply; all assume only a question of manipulating demand.)

Sometime in the late 1960s the U.S. exhausted its reserve of capital accumulated from the less than optimum rates of production in the 1930s, 40s and 50s. (Interest rates as a partial reflection of balanced supply and demand were as low as 4½% in 1965.) There was (is?) no worldwide willingness to face up to the limits of excess expectations. Prudence in financial matters is hardly recognized. Thus, the excess demand vs. limited supply (at old prices) has resulted in inflation, social violence, commodity price explosion, nationalism and distorted capital markets. One simple example of the latter is evident in the market value of IBM's 147MM shares which now exceeds the 3.4 billion shares of the 1,360 issues on the American Stock Exchange. I thoughtfully suggest that with all of IBM's brilliance and success that this might nevertheless be a good exchange.

Capital markets provide three purposes: a reservoir of asset values in currency form; a means of exchange with the greatest of liquidity and rapidity (compared to asset barter) and as a allocator of resources through relative price changes. The reciprocal of the latter function is the ability to raise capital. The more liquid the marketplace the greater ease of transfer of money from areas of excess liquidity to those with the greater real or potential return. Thus, the system functions, not perfectly, but better than any other. To date no other system has been able to support the high U.S. level for national defense *and* a consumer economy.

CORPORATE ENVIRONMENT

Capital needs of over \$3 trillion in the next fifteen years (double the last 15) indicate that the U.S. is again a developing country (energy, minerals, agriculture).

Large dollar needs for basic industrial capacity is unlike anything since late 1950's.

Limitations on internal financing are—in 1965 depreciation and retained earnings accounted for 90% of non-residential fixed investment—now down to 75% and declining sharply as the rate of inflation affects current replacement cost. Corporate profits are still inadequate despite sharp increases in current dollars; “embarrassingly so” in current dollars due to higher product prices; this is indicative of large wage demands in the future.

Debt/equity ratios up sharply in the last 10 years; they cannot increase at that rate without financial problems sooner or later; equity must be found.

Where will money come from?

1968-72 from institutional investors who increasingly purchased stock since 1965. Now at a maximum representation with the unweighted index of all markets off some 70% (Chart 1).

The public is the major answer since it has liquid savings and has been “a seller” of common stocks for the last decade. (Chart 2)

Why Did Public Go Out of market:

1. Aggressive willingness to pay rising prices for stock by institutions.
2. Negative effect of sharp 69-70 speculative decline.
3. Adverse tax changes for stock ownership, i.e., higher capital gains.
4. Wall Street “failures” and concern about “inside knowledge” of institutions.
5. Current speculation in real estate, commodities—“where the action is” notice recent public advertising for these activities.
6. Attractive alternative of high yields on bonds, savings certificates, CD's etc.

7. Political unease and destabilization.

Timing Propitious for Return? A change to the real world of fundamental investing.

1. Good yields on many fine common stocks.
2. Minimum expectation versus excess of late 1960s.
3. Excessive speculation and failures in real estate and commodities will exert a negative impact on these activities.
4. Brokerage community stabilized—fuller disclosure from institutions.
5. Stocks of large companies already owned by public act better.
6. Most stocks (if not the market averages) have probably seen their lows. The background to encourage a more interested public is now apparent. A tax incentive program could be an effective "trigger" by making the risk involved in equity investment more competitive with alternatives.

Venture Capital

The term refers to private and public investments in small companies and new ideas. All corporations have their prime origin from this beginning.

Some say that most of the great developments have come from small companies or diligent individuals with a "bright idea."

The common denominator for all was a need for money. For the last fifteen years the bulk was supplied by some 14,000 "venture" public offerings supplemented by private funds of wealthy private investors and more recently some institutional investors (e.g., pension funds and banks). Many of the large corporations that entered the arena have retired. It takes an unusual mentality to develop this type of business and it appears that there is too much of a conflict between the demands of large corporate management approach and entrepreneurship. It is today almost impossible to raise such funds and yet the country needs such innovation to keep us competitive through the development of new ideas.

We estimate that there is a real need for perhaps \$200 million per year. We must return to public offerings. It is clear that the risk-taking incentive system of the 1950s and 1960s no longer works. New tax incentives are essential. Otherwise we will go down the road of Europe and Japan dominated by large companies and large financial institutions which when mixed with the bureaucracy of government is a non-flexible central control.

The biggest obstacle to liquid capital markets is economic ignorance. We must educate not only our political leadership but also the constituency starting in the schools. This is even more basic than tax incentives. If the voting constituency understands, so will the political representatives.

With this hindsight, perhaps the market disaster is not too sweeping as measured against the subsequent chaos. Now, however, expectations are minimal with stocks down 70%. It doesn't take a genius to say that the worst is over. Perhaps the market decline was not so surprising as measured against the excess expectations of 1968.

Stock markets are a mirror reflection of the trend of the times. Our society and political economy are more concerned with the accelerating accumulation of minutia for accommodation's sake versus the commitment to a larger amount of time for analysis and straightforward integrity involved in the evaluation of our problems.

The current chaos in the bond markets is a reaction to the excessive debt that has been created relative to capital resources. (Charts 3, 4, 5, 6.)

Super Cycle

The super cycle is the technical term for a world depression. Is this now possible? Yes! Why? - excess expectations fueled by political promises that caused government, business and consumers to borrow excessively from the future. This equals inflation and currency debauchment and, if virulent, guarantees a world breakdown at some point.

Politics • Inflation • Frustration • Inequities • Social Unrest • Central Control

The pessimistic social and business philosophers like Fromm and Heilbroner allude to population growth, dwindling resources, obliterative weaponry, unrestrained industrialism, moral torpor and an absence of a sense of purpose. The financial pessimist refers to excess and irrational debt accumulation and now a disintegrating confidence.

Conclusion: The U.S. and world cannot grow at the assumed extrapolation of old rate. Not appreciated by most observers; neither economists, business managers nor government. The U.S. rate will be more like 3% than 4½% real GNP growth. The expectation of all the fiscal constituencies cannot be reached. How will priorities be determined?

PERSPECTIVE

Why consider capital markets? Suppose stock exchanges were abolished. Are government bureaus better allocators of resources than a price mechanism; history says no but we live in a world that requires government and private sector cooperation. (Anomaly of reverse trend of free and non-free world).

If we sat here six years ago—July 1968—and forecast:

A quadrupling of the price of oil

Double digit U.S. inflation

A 200% increase in the price of gold

Violence, hijacking and kidnapping

Another mideast war

"Weak" governments in virtually all of the free world

The possible impeachment and subsequent resignation of the President and conviction of close advisors

Active economic rapport with China and Russia and deteriorating relations with Europe

The financial failure and major European financial institutions

Last, but not least, that the stock market would decline by some \$450 billion (measured from individual stock high prices since 1968) with financial collapse and frauds: from Penn Central, Lockheed, Equity Funding to Consolidated Edison and Franklin National.

How many would have forecast that the world would still be operative today?

The precise point is that in today's world we are not very able at forecasting and I've a natural contrarian's reluctance to extrapolate from the current well identified platform of generally accepted assumptions. Stock prices normally discount ahead and in the current position, most sellers appear to have exercised their desire for liquidity (a more palatable phrase than bearishness). Thus, while the tendency is to accept a continuation of the current adverse trends, I believe some new ones are more than apparent.

The financial leader of a major foreign international company states, "The problem is not one of forecasting, instead it is how to assess the extent of the range of options that we may face and defining what may be common to them all that can suggest approaches to decisions in the coming years." I know of no better phrase as a guideline for national security planning.

U.S. FOREIGN INVESTMENT

Between 1946 and 1973 some \$450 billion has been sent abroad as *net* foreign aid, military assistance, travel, investments, etc. The structure of the changed political, economic and financial environment in the U.S. will result in a changed moderated pattern: Why? Expropriation of foreign facilities; expensive foreign travel; apparent failure of economic assistance (India); less attractive investment opportunities in developed and undeveloped countries; a growing passive interest in the international scene by Americans.

The billions committed abroad were against an optimistic U.S. national background between 1948 and 1963. The U.S. had confidence in its ability to solve any and all problems. Slowly this has been eroded and support for similar foreign expenditures will not be easily regained in the current pessimistic attitude and desire to find simple scapegoats for complicated problems. The oil companies are the current "patsies".

Attitude of private and political (Congress) investors to foreign investment versus desires of the world will cause abrasives.

Mistaken foreign view: the recent UN session remarked that "the capital to undertake exploration in the developing countries has been running somewhat dry." This they attributed to the desire of developing countries "to assert their national sovereignty over their national resources." We see it differently.

The attitude of U.S. Corporate Managements: Raw materials—a slow realization that no company can confidently own raw materials in a developing foreign country (specific examples: Argentina, Canada, Venezuela, Chile, Peru, Mideast, Jamaica) with not even a demonstrated alternative of fair compensation for expropriation. The negative reaction of Boards of Directors to Prime Minister Wilson's statement. "We shall take into national ownership industrial sectors or individuals first within the pharmaceutical, machine tool, construction, and road haulage industries—just for starters"!

Developed countries: increasing socialism and trade barriers added to high wage rates and taxes reduce attractiveness of foreign investment: the slowdown of foreign spending has already started. The increased U.S. pressure to bring back foreign earnings is already causing abrasions with some governments.

Congressional attitude: too many domestic problems to focus abroad—voters clearly less interested—only strong courageous administration of congressional leadership can reverse the trend.

Conclusion: foreign countries are overestimating the current capital resources of the U.S. and the willingness and ability of U.S. multi-national corporations to invest abroad, at old rates of expansion let alone at higher levels. Not conducive to good diplomatic relations. Frustration will accelerate!

Regardless of the options of various scenarios, the key word financially is "constraint." We had better recognize its meaning sooner than later and not raise the expectations of the underdeveloped countries unless we are willing to significantly reduce U.S. domestic capital consumption with consumer excess.

It will be difficult to do this. We have created large constituencies with vested interests in the maintenance of organizations geared to allocating U.S. capital for foreign nations. The background now is different since it impacts the U.S. directly—food prices, interest rates, etc. How do such organizations as The World Bank, IFC, and the UN organize for the new political environment? Not without new apparatus.

Technology

The U.S. was falsely branded in the last five years as having lost its technological advantage.

This was based on a superficial conclusion from evidence such as the loss of TV and hi-fi sales, sporting goods and small cars. In a quiet but basic way its know how in the basic industries (*sine qua non*) had actually increased:

- Electronic Data Processing
- Pharmaceutical
- Mining Equipment
- Offshore Drilling Equipment
- Heavy Machinery
- Agricultural Machinery
- Truck Manufacturing
- Aircraft
- Road Building
- Communications Equipment
- Refineries
- Seeds, Fertilizer, Herbicides

Russia and China can look only to the U.S. for technology backed up by capital and managerial organization. Europe is socializing. Socialism is the antithesis of economy and efficiency. The mideast settlement with Syria with commitments of capital and technology is perhaps the modern way of negotiation or at least a different approach.

MULTINATIONALS—A brief comment on the financial aspects in discussion of these companies. They (including the large foreign ones: Unilever, Bayer, Philips Lamps, etc.) have done much to create employment and raise standards of living all over the world. Yet their image has been one of destabilizing profiteers. In quote from the summary statement of the UN twenty member panel "The Group of Eminent Persons." "Multinational corporations are not *per se* agents of development. The technology they employ, the products they market may not always be the right ones for a developing country. Only if the right choices are made can they make a truly significant contribution to a country's development. Hence the crucial importance of being selective. The United Nations should be ready to assist developing countries, on request, in making the right choice and even in assessing the kind of terms on which they should seek the cooperation of multinational corporations."

During all the hearings by the "Group of Twenty Eminent Persons" not one word was emphasized in the financial development that was directed to the free world by multinationals. If the economic and political incentives are no longer there or declining, then we must accept, as a minimum, a slower rate of capital spending. For illogical reasons the foreign critics expect their anti-multinational statements to have no effect on future inputs of capital and managerial talent. I was recently told by an old State Department friend that the typical foreign bureaucracy resents the success of the MNCs.

FOREIGN INVESTMENT IN U. S.

European Management View-

1. Expand in U.S. but limited by lack of capital and managerial expertise.
2. ECM has lost its political "glue" (France, Italy, UK).
3. Japan—raw material vulnerability; willingness of social infrastructure to produce low cost export durables.
4. Is long term strength of the US—China—Russia—Mideast based on the "glue" of raw materials, capital and technology?

The international economic world of private decisions, state monopolies, mixed regulation makes it necessary to have new ground rules for decision making. Private oil companies cannot negotiate with foreign countries. The increasingly socialistic members of the ECM cannot expect continued capital input from U.S. MNCs. The state monopolies of the USSR, China and Saudia Arabia require a completely different approach.

Problems of High Inflation as Related to National Wealth

Minerals — commodity price inflation greater than the old price structure tends to bring new production on stream and make wealth "more real" in terms of extractive economics; a key characteristic of today's world. There is also a very distortive effect on costs of production of manufactured goods. Raw material access dominates economics and long run will change politics.

Capital Markets — borrowing short to lend long equals distortion—distrust of currency is seen in the gold bug syndrone—does oil payment deficit threaten stability in some countries? Yes! Foreign countries and some less developed have borbowed to pay for oil deficits. The danger is in the exhaustion of borrowing capability and unless one assumes a smooth reflux of oil money, the international financial structure is destabilized. Politicians will then act autonomously. There doesn't appear to be enough "trust" to negotiate comfortably. Thus instability is at least the temporary norm.

Commodity Price — higher ones are more beneficial to U.S. than most other countries since we have technology and managerial ability to extract the newly economic reserves. Thus greater U.S. self-sufficiency will be a natural evolvment

PROBABLE NEW FORCES IN WORLD POLITICAL ECONOMICS ASSOCIATED WITH NATURAL RESOURCES

1. Primary loans to countries that have raw materials versus those desperate with poverty; current lack of interest let alone action for worldwide famine.
2. The possibility of a super cycle theory.

3. Danger of government insurance of foreign investments as an invitation to expropriation.
4. Concept of mutual economic hostage: U.S. has \$130 billion invested abroad—how best to protect these assets in a rapidly changing world.
5. Business-government cooperation to supplement international discussions on energy, trade and monetary problems. Some evidence already but not enough.
6. U.S. has much larger raw material reserves at *current* price levels than we and the world understand—only visible in micro events—powerful political asset when understood.
7. The oil money can only create instability if we so choose by not developing alternative sources of energy that are now economic—coal and Alaskan oil for example.
8. Is it possible to expect the worse scenario, i.e., political violence, destruction of financial relationship, trade wars and isolationism? Yes. Just extrapolate the U.S. economic ignorance and lack of domestic leadership as to capital resources to the international scene and one easily comes to this conclusion—What would the specific scenario be?
 - a. Reduced personal taxes and increased government spending will guarantee accelerating inflation. The world's financial structure can't stand the residual distortion.
 - b. Permit the ecological extremists to keep a lid on coal, oil and nuclear power without the government restricting consumer consumption.
 - c. The concept that if the Arabs won't support underdeveloped countries why should the U.S.? If we ignore world's famine we lose a lot of moral leadership. Yet without strong political leadership how can the people respond.
9. An understanding of past, present and future capital resources and economics is an essential for political diplomacy.
10. Some foreign countries will find it difficult to do business directly with Russia or the Mideast without the U.S. direct or indirect financial involvement and technological direction of the U.S.

In the short run politics determine economics but in the long run economics always determine politics. I assume that there are no more disbelievers. The following perspective comes from a recent speech by Leon Kendall, Director of the Securities Industry Association.

As you look ahead, take heart, lest the ghost of today's political and economic troubles weigh too heavily on you. It is well to recall that our ancestors, time and again, thought themselves to be living in the worst of times. Consider the record:

1810-1840 - Early in the 19th century, the onset of the industrial revolution, with its uprush of factories and cities, also produced a terrible side effect, periodic industrial collapse—depression—1819, 1829, 1837. The *Detroit Free Press* said gloomily, "All is darkness and despair. As a nation we are at the bottom of the hill."

1853 - Franklin Pierce takes office. To that point he was the youngest president and viewed as least competent. There is a drift of leadership. In 1857, the *Philadelphia Gazette* says, "Nothing in this country is safe, solvent or reliable."

1873 - Panic following four years of the presidency of Ulysses S. Grant. Political corruption of high officials was widespread in his administration. The *New York World* says, "Collapse is a grim reality. The days of the Republic are numbered."

1893 - A decade of waste used up most of the nation's capital. New railroads were delivering so much wheat and cotton to market that prices collapsed; the flood of cheap silver and decline in confidence in gold bring panic. The *New Orleans Picayune* writes, "on every hand there is depression, wreck and ruin. We can't go much further."

1907 - Investigations of large corporations disclose many abuses and create public distrust leading to a declining stock market, runs on banks. The *Wall Street Journal* decides, "The old ship of state is sinking."

One can go on and on; 1913, 1929, 1947-49. The point being that change is painful especially to those directly involved.

It is clear that the economy can no longer grow at a real rate of $4\frac{1}{2}\%$; perhaps 3% is the figure. Too much has already been borrowed from the future. Leadership can place this change in creative acceptance. The citizenry is waiting to be led. If it isn't done now with morality and integrity, it will be done later with authoritarianism.

Is there no escape? Yes—but it requires leadership and a prompt moderation of the consumer sector to rebuild capital formation and purposeful direction of the use for the factors of production.

ATTITUDES:

Attitudes may be the most important national resource we have—impossible to quantify but not to recognize. What new trends are underway:

1. Surplus of the work force—favorable demographics—excess number of college graduates—lawyers now and doctors by late 70s.
2. Corporate managements—better and broader philosophies.
3. Isolationism—increasing by any poll—prefer reductions of commitments economically, politically and militarily. Low degree of future expectation by the people.

4. Believe in real things—will it persist (real estate, gold, art) versus stock prices (mineral stocks at less than book value let alone replacement)?
5. *Quality vs. Quantity*—the developed nations can easily reduce excessive consumption but this has no appeal to underdeveloped countries who don't have the luxury of moderating economic quantitative growth.

SPECIFIC RECOMMENDATIONS:

1. Organize the U.S. decision making economic process by starting with a general conference of all the fiscal constituencies to reorganize and establish realistic economic future assumptions for all participants.
2. Modern excess consumption of energy, food and materials through moral suasions; already evidence that it can be accomplished. Plan temporary financial support for affected industries and personnel. In the terms of the economist to transfer resources from the consumer to producer sector.
3. Use capital resources and tax incentives first to develop new technology for substitute raw materials; barter our capital and technology for the few foreign raw material sources upon which we are dependent; third, develop fallback stockpiles of strategic materials. Understand the world's need for our capital, technology and *managerial* organization.
4. Restructure our laws and regulatory authorities to reflect the new socio-economic world. Set the leadership for specific new economic and financial structures.
5. Avoid the temptation to solve our problems by nationalization of industries. Integrate the political power of government with the efficiency of the private sector to deal with raw materials; law of sea use, etc.
6. Last, but perhaps number one, bring together a sense of specific economic purpose and organization in the administration and Congress. The present approach of "doing your own thing" no longer applies in today's interrelated world.

THE REALITY

A great deal of rhetoric will continue to occupy the news as to the solution for BOP problems, inflation, oil dollars, fixed vs. floating exchange rates, the price of gold, etc.

Beneath it all is one basic need: integrity for the U.S. dollar. If that doesn't improve then there is little hope for intelligent international economic relations. The main problem today is the need for a currency that can be purchased and held long term with confidence (by the Arabs especially) since they have been debauched by devaluation and sold second rate Eurodollar issues with sharp subsequent declines. As the dollar's prestige has declined, investors, bankers and foreign businessmen began to prefer things—real estate, the Deutsche mark, gold—which they believed would retain purchasing power at a higher level; and it did.

The oil producers would quickly understand their long term vulnerability to price problems and the enormous imbalance of currency reserves if the U.S. showed leadership to develop immediate alternative sources of energy, reduce consumption, and offer to share with the free world in an emergency. The Arab leaders do not want chaos. The distortion in Italy, Japan and many underdeveloped countries is a reminder of the danger. The Arabs' achievements have clearly established their world position and influence.

Firm U.S. leadership, based on the facts (not wishes), is an immediate need for the management of the present economic environment. Continuing crisis or an emerging solution is *our* choice. The blame cannot be passed to other nations.

CHART 1

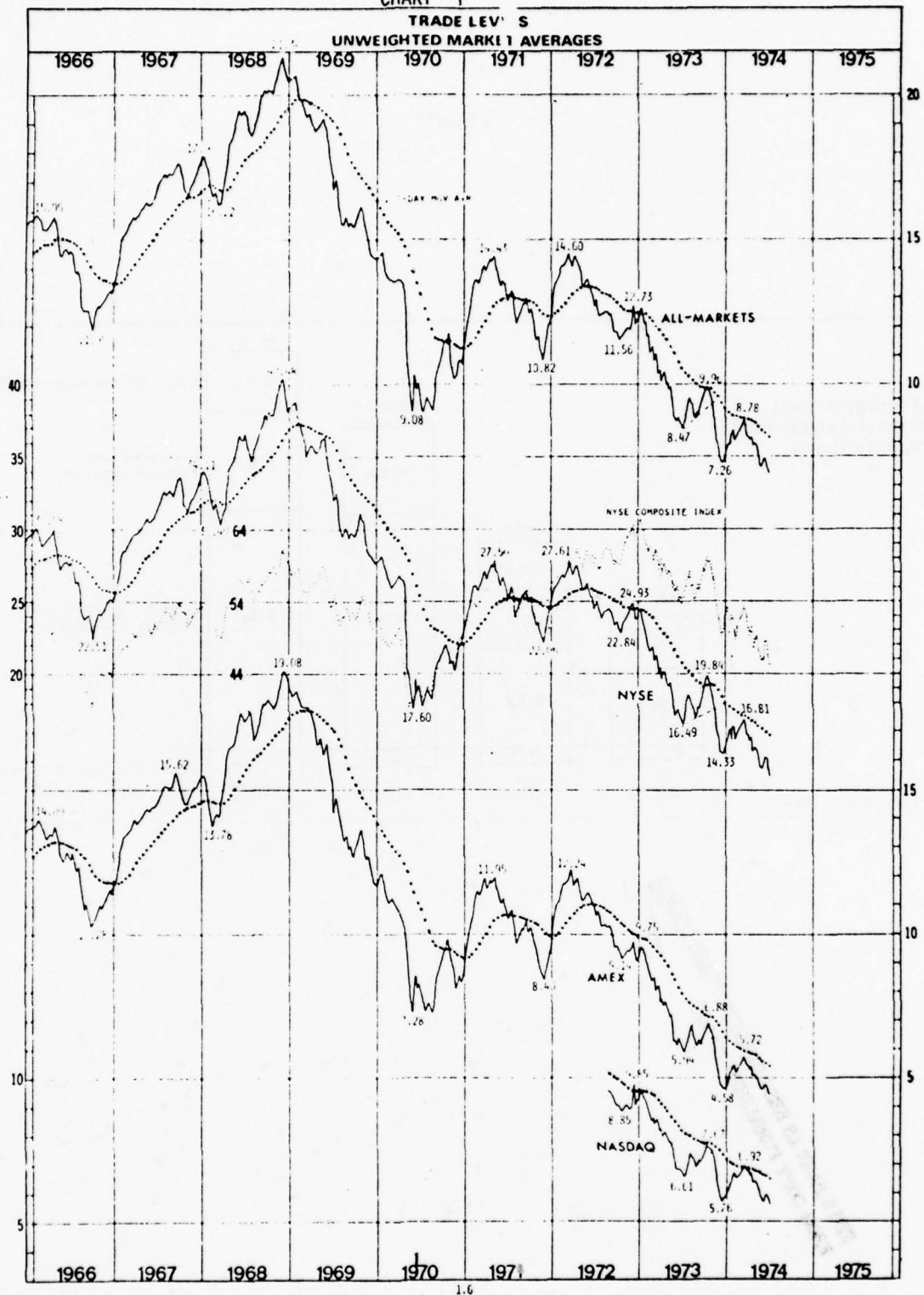
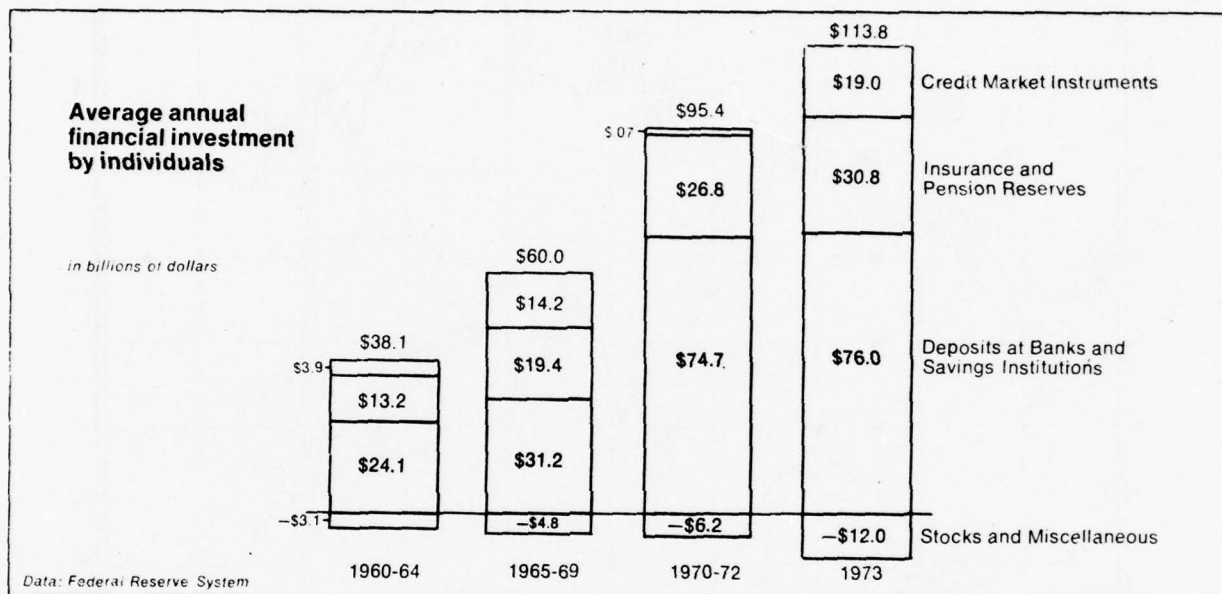
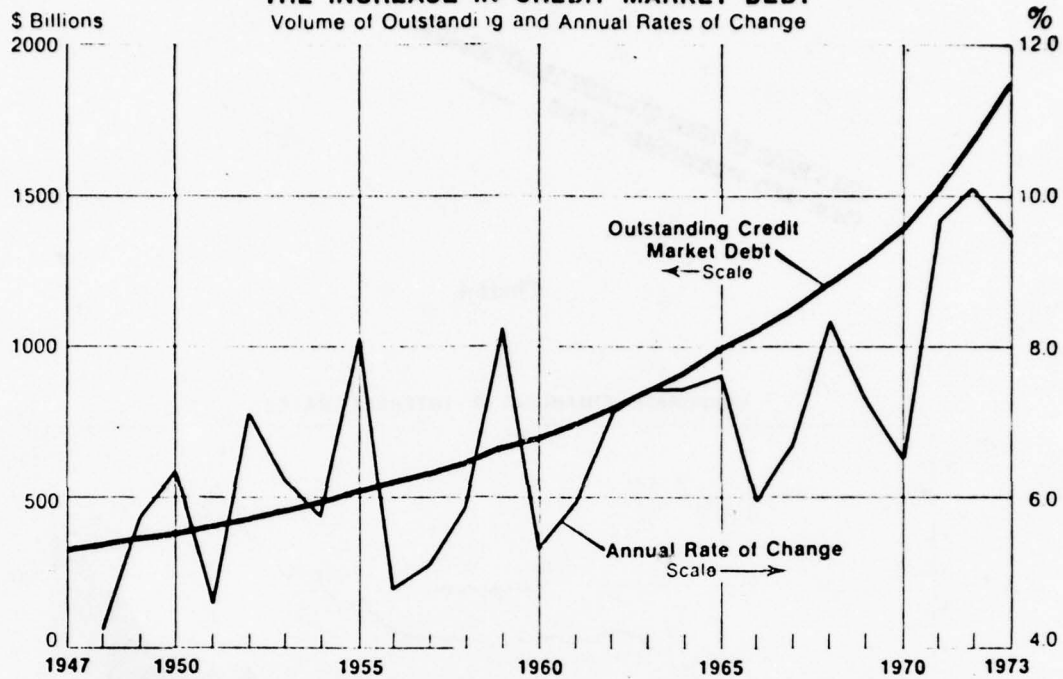


Chart 2

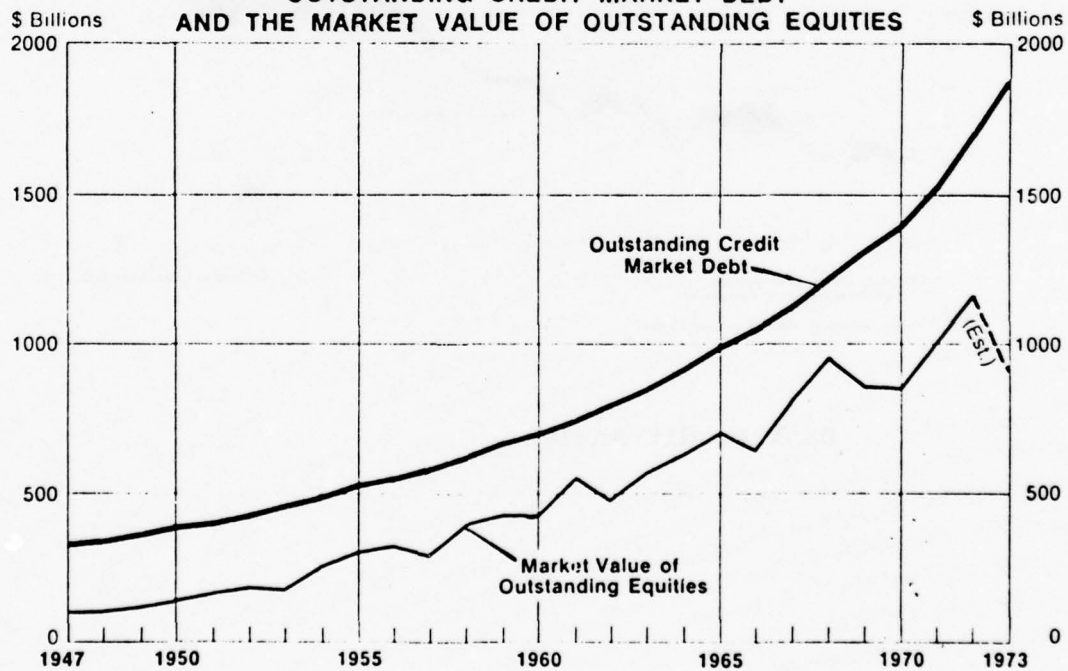


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CHART 3
THE INCREASE IN CREDIT MARKET DEBT
Volume of Outstanding and Annual Rates of Change



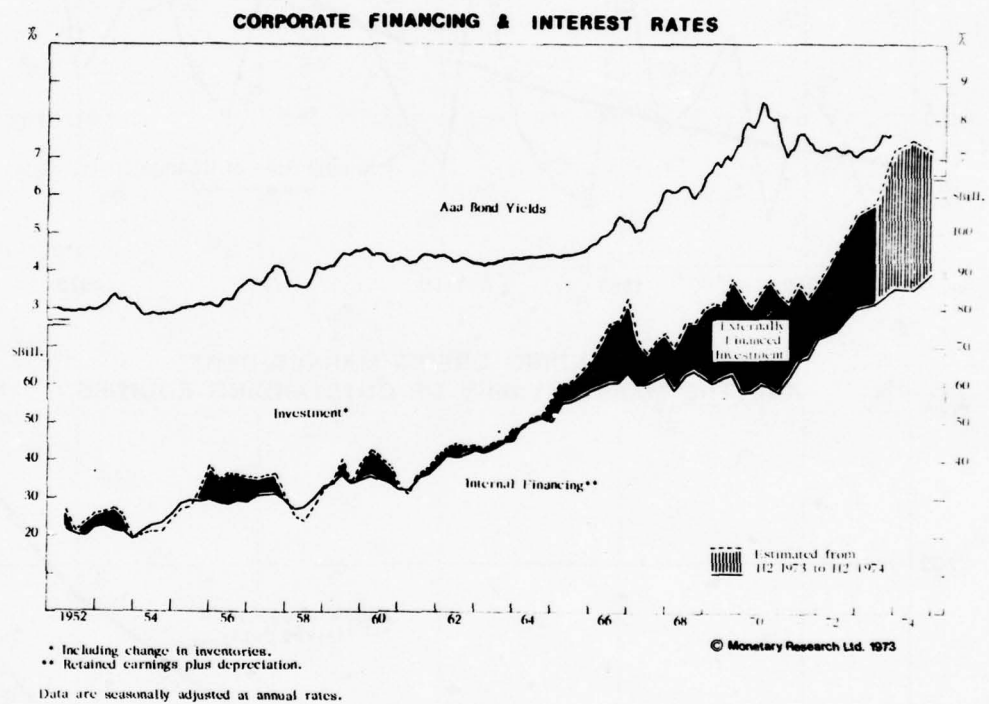
OUTSTANDING CREDIT MARKET DEBT
AND THE MARKET VALUE OF OUTSTANDING EQUITIES



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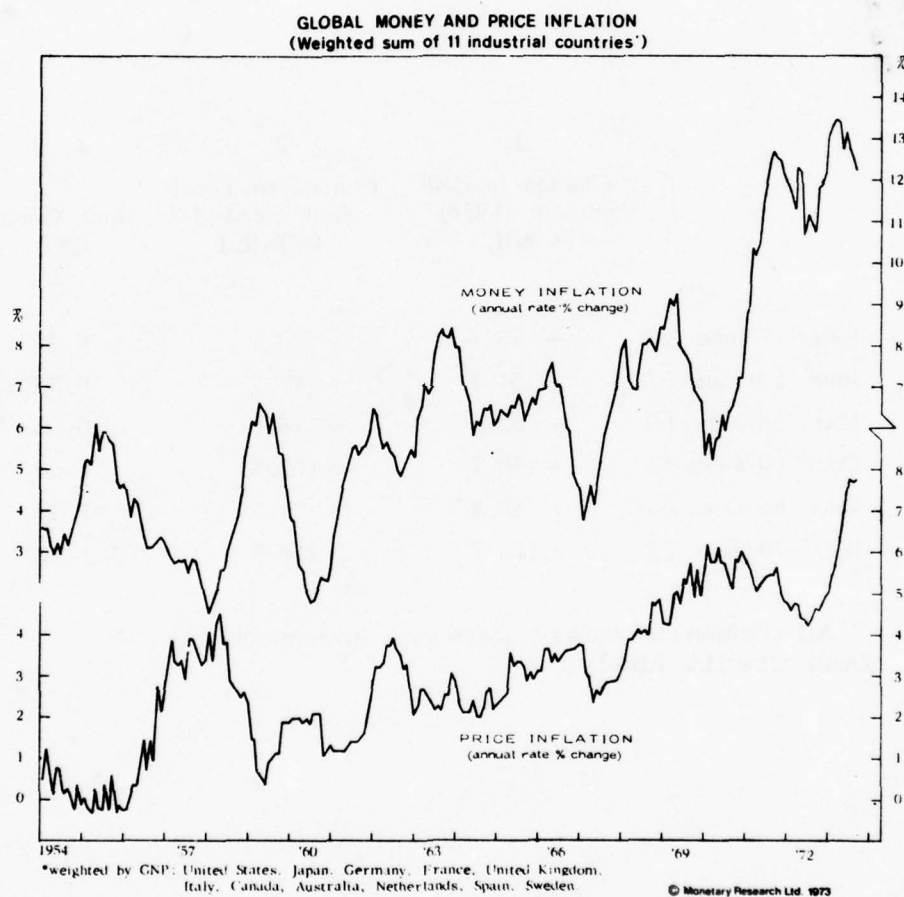
Chart 4



Bank Credit Analyst

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Chart 5



Bank Credit Analyst

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Chart 6

	1.	2.	1./2.
	Change in GNP Constant (1958) (\$ Bill.)	Change in Total Bank Credit* (\$ Bill.)	Bank Credit / GNP
June '49/June '53	+ 93.9	+ 23.9	0.25
June '54/June '57	+ 51.1	+ 17.7	0.35
Mar. '58/Mar. '60	+ 52.7	+ 18.3	0.35
Dec. '60/Dec. '65	+ 150.7	+ 102.7	0.68
Dec. '66/Dec. '68	+ 56.4	+ 74.5	1.32
June '70/Sept. '73	+ 116.7	+211.8	1.82

* All commercial banks ; loans plus investments.
Bank Credit Analysis

PANEL V

MILITARY FORCE AND NONMILITARY THREATS

Panel Chairman: Commander James A. Barber, USN, OP 60, US Navy Staff; formerly held S.B. Luce Chair at Naval War College.

Panelists: Dr. Harland B. Moulton, Faculty, The National War College

Dr. Robert Pranger, Director of Foreign and Defense Policy Studies, American Enterprise Institute; former Deputy Assistant Secretary of Defense for International Security Affairs.

Dr. Richard Leach, Department of Political Science, Duke University.

Colonel Leon Bieri, USA, Faculty, The National War College.

Rapporteur: Colonel George Tormoen, USAF, Faculty, Air War College.

Military Force and Nonmilitary Threats

Commander James A. Barber, Jr.,
United States Navy

There is a special frustration in discovering that one's strength is ineffective. Americans, perhaps more than other people, have tended to believe in the efficacy of strength and direct action as solutions to problems. For the last quarter of a century the United States has maintained one of history's strongest military establishments. Yet there is a growing realization that this strength is applicable to a steadily decreasing portion of our problems. The frustrations of the Vietnam War, the weakening of the dollar as an international currency, the impact of the Arab oil embargo, and our apparent inability to respond effectively to actions such as the denial of American fishing rights or the expropriation of American property, have all contributed to doubts about the utility of military force. The purpose of this essay is a stocktaking on the applicability of the instruments of military force: to assess the contemporary utility of military force as an element of U.S. national policy, particularly with respect to international problems other than direct military threats.

There is an inherent artificiality in attempting to assess the utility of military forces *in vacuo*, for they are virtually always used as one element in an overall policy. When confronted with a new international problem, or a recurrence of an old problem, decision makers cast about to see what tools can effectively be brought to bear, and military force is by no means always a useful one. The ultimate response is usually a combination of actions, containing diplomatic, psychological and economic as well as military elements, and any particular response is often only one portion of a wider policy. Thus most of our policies which involve the use of military forces combine both military and non-military actions, and the best thought out policies generally contain elements of both carrot and stick.

The effective use of military force, whether express or implied, must follow a political logic, not a logic of its own. Because, at least in anything short of all-out war, the military role is only one element of national policy, and its utility must be assessed in terms of its contribution to that policy. That military forces cannot accomplish a task alone is not an indictment of their utility. The pertinent issue is whether their contribution to the successful pursuit of national goals justifies their costs, and it is against that standard which they must be measured.

To anticipate a conclusion, it is the basic contention of this paper that military forces do have substantial contemporary utility, but that this utility now rests in larger measure on their indirect or non-fighting functions than it did in the past. To assess this change we should turn first to an examination of those factors which tend to lessen the utility of direct use of military forces.

The Diminishing Utility of Force

The forceful employment of military power as an instrument of national policy now appears to have fewer rational uses than ever before, particularly for the United States. This loss of utility has been created by a complex set of trends. Some of these trends have been with us for a long time, some are new; certain of them appear irreversible, while others may turn out to be cyclical.

One apparently irreversible trend is the steadily increasing destructiveness of war. Weapons of mass destruction, coupled with means of delivery of world-wide reach, have made large scale war potentially more destructive than ever before. In addition, increasing world interdependence compounds the difficulties of containing a conflict once it starts. World wide systems of alliances, increased economic interdependence, and modern telecommunications make it easier for a war to spread. These changes increase the potential cost of war, thereby reducing the utility of direct military action in pursuit of policy by raising the cost side of the cost/gain calculation.

Contemporary events have affected the utility of war in other ways. The Vietnam War, for example, has both created a relatively widespread disillusion about the utility of using force in the way in which it was used in that war, and has caused some rethinking of the efficacy of using high technology military forces in an insurgent war. A second contemporary influence is the prospect of detente, which some view in terms of a reduction in the usability of force between the parties.

With the Japanese example serving as an illustration, there is accumulating evidence that the most effective road to nation wealth and influence may well be economic and not military. This has been reinforced by a cultural movement in the direction of widespread humanistic beliefs, particularly in the West, and an apparently increasing opposition to traditional authority. Both of these trends oppose military solutions, further reducing the direct utility of military force.

Finally, the growth of world-wide mass communications generates new pressures and oppositions to military action. The role of mass communications in developing the majority of both domestic and international opposition to the American role in the Vietnam War is a case in point. War has always been a bloody and distasteful business, but so long as this fact was vivid only to those directly involved in the fighting it was possible for citizens more remote from the scene to maintain their enthusiasm for martial glory. But when the horrors of war are covered vividly and repeatedly every night on the 6 o'clock television news, martial enthusiasm is likely to be short-lived. Not only does this affect wars in progress, as it did in Vietnam, but foreknowledge that it will take place also inhibits the decision to employ military force.

The Use of Military Force

The cumulative effect of these trends has been to diminish increasingly the utility of military force for the U.S. But it would be a mistake to conclude that the utility of acts of war have disappeared. Circumstances still exist in which the violent choice is still the most effective one. Perhaps the clearest recent example is the Soviet use of force in Czechoslovakia, which from the Soviet point of view was highly effective.

This range of effective choice does not, however, extend to high levels of conflict between the superpowers themselves. Large scale wars between the two superpowers, whether initially waged with nuclear weapons or not, would involve such grave costs and risks that it could not conceivably be a rational and deliberate policy for either side.

At the lower levels of violence, at which the decision to employ military force may still be rational, it is possible to sketch out roughly some of the rules which seem to affect the usability of the fighting employment of force by a superpower. For example:

a) military force is most usable against one's own allies, clients, or satellites, less usable against neutrals, and even less usable against the opposing superpower itself.

b) military force is most usable in close geographical proximity to the superpower's homeland or in an acknowledged zone of influence, least usable in close proximity to the opposing superpower.

c) military force is most easily used in support of a plausible victim of aggression, particularly if this can be done under international sponsorship.

d) military force is under fewer inhibitions when wielded by a superpower surrogate than by the superpower itself.

A further rule, applicable primarily for a democracy, is that protracted conflicts tend to be politically impractical. Military force is most employable for a democratic nation either in a short, sharp war with a clear purpose and a visible end, or in a "low-visibility" war, conducted on a limited basis by professional forces.

Other of the apparent rules governing the utility of force involve some interesting paradoxes. For example, as has already been noted, one source of belief in the declining usefulness of military violence is the development of a degree of detente between East and West. Yet paradoxically as the danger of whole-scale conflagration recedes, the usability of lower levels of violence increases. This is because, as the dangers of escalation decrease, it becomes possible to employ military force for limited objectives with less fear that it may get out of hand.

Similarly, an increasing belief by one side in the irrationality of force may tend to encourage violence by the other side, as the "rational" side makes clear that it will yield in preference to fighting. The concessions to Hitler at Munich are a familiar example. Thus the paradox: too firm a conviction that violence is irrational may serve to encourage violence.

Despite the assortment of factors which operate to restrict the utility of overt use of military force, it is in many circumstances both usable and effective. But as the remainder of this paper will argue, the primary value of military forces in our time is in their indirect employment rather than in direct war-fighting use.

Clausewitz and Sun Tzu on the Use of Force

For the last hundred years the strategist most quoted in the West would probably be Karl von Clausewitz. What he had to say was a great deal more complex and subtle than can fairly be represented by quotes taken out of context, but unfortunately for these subtleties Clausewitz had a flair for ringing assertions. Two assertions his disciples are fond of quoting are: "War is a mere continuation of policy by other means;"¹ and

"Let us not hear of Generals who conquer without bloodshed. If a bloody slaughter is a horrible sight, then that is a ground for paying more respect to War, but not for making the sword we wear blunter and blunter by degrees from feelings of humanity until some one steps in with one that is sharp and lops off the arm from our body."²

On the basis of these and similar assertions, Clausewitz became known as the prophet of total war—though his own logic would also lead to the conclusion that as the costs and risks of war increase it becomes a less usable means for the pursuit of national goals.

In contrast to Clausewitz' emphasis upon the decisive climactic battle between opposing armies, the ancient Chinese general, Sun Tzu, emphasized the importance of winning without fighting. He states: "Thus, those skilled in war subdue the enemy's army without battle. They capture his cities without assulting them and overthrow his state without protracted operations."³ Both Clausewitz and Sun Tzu emphasize the use of military forces as a means to achieve political goals. The difference is that Clausewitz emphasizes the overt, fighting use of military forces, with the aim of achieving a decisive set-piece battle between opposing forces, while Sun Tzu emphasizes bluff, maneuver and strategem, avoiding direct fighting wherever possible. In this sense, then, we have for some time been moving from an era dominated by Clausewitzian strategy into one in which Sun Tzu kinds of strategy are dominant.

Explicit and Implicit Threats

That it may not be rational to *use* military force in response to a non-military threat does not necessarily mean that there is no utility in *threatening* the use of force—or even in just possessing usable military force without any explicit threat. An adversary can never be certain that you will behave rationally, and since an irrational action on your part may be catastrophic for him, he may be induced to tread cautiously.

Recently the fact that the U.S. Marine Corps was conducting desert maneuvers received global attention, and was widely interpreted as evidence that the United States was considering use of the Marines in some military move in response to the Arab oil embargo. Arab spokesmen were quoted in a variety of ringing responses to the alleged threat, including vows to blow up the oil facilities in response to any U.S. military intervention. Few noted the fact that the Marines have had a training facility at Twenty Nine Palms for years and have used it regularly in the past. For a variety of reasons it would not have made much sense for the U.S. to respond to the oil embargo by landing the Marines. Such an attack would have provoked instant and bitter world-wide opposition, would probably have triggered the threatened Arab scorched earth policy, and might well have resulted in a confrontation between the U.S. and the U.S.S.R. But the fact that a Marine landing would have been irrational does not mean that it was necessarily bad for the Arabs to fear that we might do it anyway. The scorched earth policy would have been even more costly for the Arabs than for us, and thus they had a vested interest in not pushing us too hard for fear that we might indeed prove irrational. It is hard to establish that any particular Arab action was affected by such considerations, but the evidence does indicate that the possibility was much on their minds.

A similar, but more formally defined and widely understood non-use of military force is in its deterrent role. Deterrence is preventing someone from doing something he otherwise would do, for fear of the consequences. Deterrent threats need not be in kind to be effective, but they do have to be close enough to scale to be credible. It is not believable, for example, to threaten nuclear retaliation in response to a guerilla attack. On the other hand, it is in many cases credible to threaten lesser military responses to either military or non-military pressures. As already noted, there is a great deal of overlap between military and non-military means of influence, and a nation

always attempts to make best use of whatever means are available. Almost by definition, wars begin when one side decides to take military action in a situation which until then has not involved direct use of military force. A classic example is Japan's decision to react with military force to non-military pressures being exerted by the United States. And to the examples of direct use of military force must be added countless instances where the threat or the potential of using military force was adequate to lead to a resolution short of war. Thus deterrence in the sense of affecting the actions of others through explicit or implied threats (which can be either military or nonmilitary) permeates much of the political interaction between states, even though the term deterrence is customarily used in a more limited sense.

In the contemporary strategic lexicon, deterrence usually refers to the prevention of military aggression by threatening retaliation in kind. Although earlier in the atomic era it was believed that nuclear capability could be effective in deterring (or even in responding to) a relatively wide range of threats, current hopes have narrowed. It is now generally accepted that a capacity for strategic nuclear attack can effectively deter actions only at the level of threats to national survival. This narrowing range of effective nuclear deterrence increases the scope of problems to be countered in other ways. Yet it does not eliminate nuclear considerations for nations contemplating lesser uses of force: there is always the danger that through accident, miscalculation, or irrationality a limited use of military force may get out of control. As Laurence Martin has noted: "deterrence works largely by the permeation of diplomatic situations by a rather crude but politically powerful sense of risk."⁴

The risks of nuclear war are sufficiently grave that the superpowers have tended to be relatively circumspect and cautious in their confrontations, with apparent clear awareness that the stakes of issues involved were not worth a risk of general war. But the way in which these non-fighting confrontations between the superpowers are resolved has a very great deal to do with the relative strengths of their armed forces even though they are not actively employed. The side with military superiority enjoys a major advantage in diplomatic maneuvering, even in circumstances in which overt use of that power would not make sense. This is not to deny the important influence of other factors, including diplomatic skill; but no matter how skilled the diplomat, it is impossible to win the hand without holding good cards, and military force in being is one of the stronger cards.

This use of military forces extends beyond crisis diplomacy to the whole range of negotiations. Huntington has argued that easing of the cold war greatly increases the utility of military strength:

In an era of confrontation, there is not much that military force can be used for except to confront, that is, to deter. In an era of negotiations, paradoxically, the potential uses of military force multiply: military buildups, weapons decisions, deployments, and even actions, all become ways not simply of deterring military aggression by the other power, but also ways of putting pressure on him to make concessions at the negotiating table. So long as there were no negotiations, there was no opportunity for military power to perform this function.⁵

Huntington goes on to point out that American security can no longer be adequately defined in terms of geography, but rests primarily instead "...on the development and maintenance of a set of

relationships among the major powers so that no power or combination of powers can threaten the United States."⁶ These relationships in turn are based not only on military power, but on diplomatic and economic interchange as well. The NATO military relationship, for example, is only a portion of the much broader ties the U.S. has with Western Europe. The close linkage between economic, political and military policies is evidenced in the tacit but clear implication that continued high levels of U.S. military support may in part depend on cooperative European economic and political policies.

In all of this there is a predominance of the deterrent, diplomatic, non-fighting utility of military forces over any overt role. The utility of military force in this sense is latent—an important, perhaps crucial, part of events taking place, but largely in the background. The emphasis is upon the political utility of military forces, rather than their fighting utility, although one is closely dependent upon the other.

The perceived reduction in the direct utility of military force depends in part upon the maintenance of at least a rough military balance. The dangers inherent in military conflict between the U.S. and U.S.S.R. make both sides cautious in the use of force. This inhibition would in large measure evaporate if one or the other became militarily dominant. Even in that case it can be presumed that the strategic nuclear stalemate would persist; but as has already been noted, nuclear deterrence has come to be credible only for a narrowing range of contingencies. If one of the superpowers achieved clear dominance in conventional force, it could use that force with a far greater degree of freedom than at present, confident that the weaker power could contest matters only over issues so vital as to involve the nuclear spectre. Even in that case the impossibility of predicting the other's behavior with certainty would exert some restraining influence.

Thus the military forces of the superpowers serve to inhibit each other in a system of countervailing power. For example, the growth of Soviet naval presence in the Mediterranean has limited the freedom of action of the 6th Fleet. A decision of the kind President Eisenhower made in 1958 to land troops in Lebanon would be much more difficult today. If, on the other hand, the U.S. abandoned a military role in the Mediterranean it would be likely to confer on the Soviet Union the same kind of monopoly of force once enjoyed by the West. The presence of both fleets limits their freedom of action in reciprocal ways. This countervailing effect has, at the same time it inhibits superpower use of force, tended to create greater freedom of action for some of the smaller powers, lessening their fears of great power intervention.

Presence

The benefits of one important use of military force, those actions which fall into the categories of "showing the flag," military "presence," or "show of force," tend to be asserted more often than analyzed. It is, for example, frequently stated that regional military domination by a major power is likely to result in a satellite status for the smaller nations of the region. There may be a situation in which a small nation, viewing the dominant regional military power of the larger nation, decides that the most prudent policy is to carefully avoid giving offense to the giant in whose shadow it lives. This result is by no means inevitable however. Cuba, for example, exists as a Soviet satellite in the shadow of the U.S.; and Norway, Turkey and Iran, with U.S. security assistance and geographically defensible frontiers, maintain independence from the Soviet Union

despite contiguous borders. Each of these instances of independence in the shadow of a giant is underwritten by unequivocal support from the opposing giant. Presumably this is necessary if the creation of dependencies is to be avoided, but we do not seem to know a great deal about the mechanisms involved.

Policy decisions would be easier if we had some useful and reliable guides to action, but they are hard to find. We seem sometimes almost to react out of habit, sailing the fleet to any trouble spot to conduct a show of force without any entirely clear notion as to what is to be accomplished. Despite this, over the years such action appears to have gained us more than it has lost. One of the best features of such a response is that it gives you a capability to do something military without necessarily committing you to it, and can imply the possibility of military action without anything so crude as an overt threat. Yet even after centuries of practice we have little in the way of useful rationale to justify our habitual action.

This lack of rationale can lead to a situation in which it is asserted that a given action is either beneficial or harmful to our interests, with little established basis for choosing either side. During the Indo-Pakistani war of 1971 a naval task force built around the USS ENTERPRISE was deployed to the Indian Ocean. The task force maintained a presence there for about one month, then left, never having been involved in military action, or even in confrontation. What was accomplished? Proponents would assert that the U.S. presence helped to stabilize the situation, limited India's designs on Pakistan, and, by providing the means for evacuation if necessary, made the lives of U.S. citizens in the area somewhat safer. Detractors would assert that the U.S. presence was useless in assisting Pakistan, needlessly alienated India and Bangladesh, and provided the Soviet Union with an excuse for flexing her own naval muscles in the area. Even if we grant that the truth lies somewhere in between, there is no good way to prove or disprove either set of assertions. Particularly if, as is proposed here, the non-fighting use of military forces is becoming increasingly important, we very much need more adequate theory on which to base that use. Or if "theory" is too pretentious a word for the level of precision we are likely to achieve, then we at least need more reliable rules of thumb as guides to the non-fighting employment of military force.

Military Forces and National Policy: the Mid-East War

One of the clearest recent examples of the use of military forces to respond to a non-military threat occurred in the case of the Arab oil boycott which resulted from the 1973 Mid-East War. It is again almost impossible to prove any direct link between events, but U.S. actions were from most points of view unusually successful, and were a complex intermix of diplomatic and military maneuvers. Any complete assessment is beyond the scope of this paper, but even a superficial examination is of interest.

U.S. aims with regard to the Middle East conflict might be summarized as follows: avoid expansion of the conflict; insure the survival of a viable Israel; bring the conflict to a quick conclusion; lay the groundwork for a long-term solution; reduce Soviet influence/increase U.S. influence in the region; and maintain access to Middle East oil. To date we have been more successful in achieving these aims than could have reasonably been hoped last October. A prime ingredient of this success has been the skillful diplomacy conducted by Secretary Kissinger, but a major part of this diplomacy has involved a succession of military moves as well. During the

conflict itself the more significant moves were the 6th Fleet deterrent posture vs the Soviet Mediterranean squadron, the well-executed air and sea resupply of Israel's pressing military supply needs to keep pace with similar resupply efforts by the USSR to the Arab participants, and the U.S. world-wide alert. Follow-on U.S. military actions have included an increased naval presence in the Arabian Sea/Persian Gulf area, the publicity which attended the Marine training exercise at Twenty Nine Palms, increased U.S. military cooperation with Iran, hints of U.S. willingness to provide military aid to Egypt to replace any loss of Soviet aid, and a joint US/UK effort to sweep mines from the Suez Canal. Each of these actions has been both criticized and praised, and it is difficult to measure their individual contributions to the result. But although the utility of the individual actions may be hard to assess, the overall policy to which they contributed has been a success. We have achieved the majority of our aims in difficult circumstances, and the military moves have been a substantial part of our overall effort. It is significant that all of this has been a non-fighting use of military forces.

The Problems of Latency

The question posed by our assigned topic was: "what can be done with military force in response to non-military threats?" Part of the answer is that in most circumstances fighting use of military force is not rational as a one-to-one response to non-military threats. It is also evident, however, that even though our understanding of the latent, non-fighting use of armed strength is imperfect, it can be of very high utility as a vital element in the complex business of shaping events in preferred directions.

Not only do we need to understand the non-fighting utilities of military force better in order to use it most effectively, but we also need to be able to explain it with sufficient clarity to ensure public support, qualified volunteers, and military budgets adequate to the need. A fundamental dilemma is that the more useful military force is in the latent or limited ways, the harder it is for the public to understand or support. In one case of non-use of force, strategic nuclear deterrence, there is fairly widespread understanding and support. Yet in other indirect uses of military forces our case is less well understood. American tradition has tended toward all out crusades followed by periods of virtual unilateral disarmament; and when we have been involved in more limited conflicts popular support has eroded rapidly. These traditional attitudes contribute to the difficulty of making the case for adequate military forces, and of maintaining the public appreciation of the role of those forces necessary to adequate recruitment, esprit and effectiveness. Making this case to Congress and the country in an understandable and convincing way may be one of the tougher challenges of the future.

Other problems inhere in a situation where direct use of military force is increasingly inhibited and indirect uses are not well understood. If the use of force were to be abandoned entirely, we would lose much of our ability to influence events in that less developed portion of the world where violence still retains greater utility. There is an even greater danger that the developed nations of the West, viewing the use of overt force as increasingly irrational, will weaken themselves both in military strength and in the will to use the strength to the point that they tempt those who are less inhibited to take advantage of their weakness. In contrast to what is taking place in most Western nations, the Soviet armed services appear to be assuming an increasingly important

decision-making role; and after Mao departs the scene there is likely to be an increase of the influence of the armed forces within China. A world which combined an armed and militant East with a weak and inhibited West would be an uncomfortable place to live.

Summary and Conclusion

For the United States the forceful employment of military power is becoming a less attractive option. The gains to be achieved by military force have dwindled and the political, economic and social costs associated with its use have grown. This does not, however, imply an equivalent loss in the utility of military forces employed in other ways. It is the political utility of military strength that has become crucial, emphasizing the latent uses of military forces in their deterrent, diplomatic, non-fighting roles.

One of the inherent dangers of this shift toward the latent use of military force is that it is much harder to understand, explain, and justify than are more traditional uses. This will increase our difficulties in maintaining adequate public support and funding. Perhaps even more dangerous, inhibitions on the use of force are much less stringent in much of the rest of the world than they have become for us. If we divorce ourselves too thoroughly from the use of force, we may become painfully vulnerable to those who are less constrained. To forego the use of force is to acquiesce in circumstances that can be avoided or changed only by forceful means, and to abdicate control to those who are willing to use force. Such a course would be both costly and unwise.

Footnotes

¹ Carl von Clausewitz, *On War*, Col. J.J. Graham, trans. (Harmondsworth, Middlesex, England: Penpuin Books Ltd, 1968), p. 119.

² *Ibid* p. 345

³ Sun Tzu, *The Art of War*, Samuel B. Griffith, trans. (New York: Oxford University Press, 1963), p. 79.

⁴ Laurence Martin, "The Utility of Military Force," Adelphi Paper no. 102 (London: International Institute for Stragegic Studies, 1973), p. 18.

⁵ Samuel P. Huntington, "After Containment: The Functions of the Military Establishment," *The Annals of the American Academy*, Vol. 406 (March, 1973), p. 8.

⁶ *Ibid.*, p. 6.

PANEL VI

"NEW" FORMS OF VIOLENCE IN THE INTERNATIONAL MILIEU

Panel Chairman: Colonel Seale R. Doss, USAR, Associate Professor of Philosophy, Ripon College; Commander, 12th Special Forces Group.

Panelists: Mr. Jay Mallin, Institute for the Study of Change,
Dr. Irving Louis Horowitz, Professor of Sociology and Political Science,
Rutgers University

Major Roy Stafford, USAF, Department of Political Science and Philosophy,
US Air Force Academy.

Colonel J. W. P. Robertson, USMC, Faculty, Naval War College.

Rapporteur: Colonel Robert Reuter, USA, Strategic Studies Institute, Army War College.

"NEW" FORMS OF VIOLENCE IN THE INTERNATIONAL MILIEU

Seale R. Doss
Ripon College

A decade ago, when the phrase "Seven Days in May" referred to a different kind of melodrama, American sentiment about war and politics included among its most popular apprehensions the fear of a military *junta*. The seizure of governmental power by the nation's armed forces—dramatized, quite naturally, as a struggle between opportunism and impotence—no doubt remains a latent (and symptomatic) theme within the American political tradition. For those more concerned with events than traditions, however, seven days in May, 1974 could suggest a far more realistic, far more sinister threat to the security (not to mention structure) of American life. In that short time, three remarkable events captured world headlines in rapid succession:

- Arab terrorists seized a Jewish high school and two dozen children died in a massacre which not only undermined the Israeli government but threatened American attempts to settle the Mideast conflict.

- Hours later, two dozen pedestrians died when stolen cars packed with time bombs exploded in downtown Dublin, the event inspiring a new cycle of violence among Irish extremists.

- In Los Angeles, millions watched on television as six members of the so-called Symbionese Liberation Army waged war with police, then died in flames when the house in which they were trapped was ignited by tear gas cannisters.

No extraordinary imagination is required to connect such events, to perceive them as evidence of a world-wide tendency to extend politics into new forms of conflict, and hence new forms of violence. Indeed, each of the three could be seen as mere episodes in the development of a new form of struggle, for each of them reflected the politics of violence in the same way; the Palestine Liberation Front with its suicidal raids, the Irish extremists with their bombs, even the SLA in its own flamboyant, almost farcical way had delivered the same message again and again: henceforth issues would be determined by assassination, kidnapping, bombing, terrorism. Presumably, then, only the issues themselves would distinguish such events, the techniques of their debate having become so commonplace. One might even allude to the banality of violence; these were, after all, only three events in May, and such violence has become so characteristic of modern extremist politics that even its symbols have become blurred. Who can even recall them all, the FLN, the IRA, the FLQ? Still, one may suspect that the patterns of such violence provide a glimpse of the future, and hence a warning signal for those concerned with controlling (or at least enduring) that future. For it is not difficult to imagine future headlines telling of:

- A jet airliner, brought down by a heat-seeking missile launched from the back of a station wagon parked just outside O'Hare Field...

- An epidemic in which thousands die in Boston after the city's nearby filtering plants are infected with a massive dose of crippling germs...
- A city the size of Dallas held hostage by terrorists armed with a small, suitcase-carried nuclear weapon capable of killing thousands...
- An entire steel industry paralyzed for weeks when production, shipments and inventories are misrouted because a key computer system has been tampered with and programmed for chaos...
- Widespread death in New York City because its subway tunnels have been pumped with poison gas.....rioting in San Francisco after a week without electricity.....a suspension of all schools in Philadelphia after a series of classroom bombings....

How one thinks about such a future depends, of course, upon how one thinks at all. Given the ideas, the language and the models by means of which war and politics are normally envisioned, such violence is likely to be examined (if examined at all) in terms of force, vulnerability, threats, counterthreats, options—in short, in terms of those very categories which characterize the civilization against which much (if not most) of the violence itself is directed. It is not surprising, therefore, that a great deal of the dialogue associated with modern violence is doomed at the outset. Indeed, Mao's celebrated remark about power and the gun barrel might well be accompanied by a secondary insight: how one sees things depends, finally, upon which end of the gun barrel he is facing. Whether or not conventional ideas will provide any insight into the future of violence is thus largely a matter of the perspective they afford. It is not likely to be the only perspective at hand.

In what follows, two such perspectives will be attempted. One of them, the more detailed one, is inherently rational and thus optimistic. The other is inherently pessimistic. Neither is conclusive. The future is, after all, a matter of speculation.

Modern Violence

In the attempt to make sense of modern violence—and particularly the kind of violence which seems most threatening—one may isolate three fundamental considerations: the nature of revolutionary doctrine, the vulnerability of urbanized civilization, and the relationship (if there is any) between the one and the other. It is this third consideration which will likely govern one's perception of the threat, for if contemporary civilization is truly marked by the presence of violence, it is revolutionary doctrine which gives meaning to the most dramatic forms of this violence.

The doctrine is not especially new, but its character is easily underestimated. It is, in a sense which is most important for the study of violence, not only ideological in nature but also both scientific and experimental. Its essential history is no doubt well known: the 19th Century growth of anarchist terrorism, Lenin's prolonged effort to integrate political violence and socialist thought, the Bolshevik reliance on terror and subversion, the subsequent study (and discovery) of what would work and what would not, the refinement of a theoretical blueprint defining the mechanism of alienation, subversion, terrorism, insurgency, insurrection and the seizure of political

power and, finally, the export and application of the theory in the revolutionary wars of China, Indochina, Algeria, Cuba and elsewhere. These are only the more obvious landmarks in the history of revolutionary doctrine (and doctrine it is, of a most detailed sort). What is generally overlooked, in the pre-occupation with revolutionary ideology and tactics, is the incredible amount of sheer thought which has made such tactics possible, and kept such ideologies alive. For many of this century's keenest minds, the search for the correct revolutionary formula has been nothing less than *the* political science.¹

This quest has been punctuated by intense disagreement, to be sure. Questions of technique, procedure, even strategy have brought fierce debate among revolutionary thinkers in much the same manner, with much the same deliberation, which similar questions have provoked among more conventional theoreticians of war and peace. Foremost among these issues is, no doubt, the role of urban warfare in the revolutionary process. Despite Mao's emphasis on the relationship between guerrilla warfare and the rural peasant, despite the doctrinaire vision of armed, revolutionary conflict culminating on the open battlefield, and despite the role of rural warfare in the most important revolutions of the past half-century, the rapid urbanization of much of the world now suggests new opportunities, and hence new strategies for revolutionary warfare, and, in particular, a new attitude toward the role of the city as the ultimate revolutionary battlefield.

It is true that no major revolution or rebellion has succeeded from a strictly urban effort; it is also true that some of the more dramatic efforts (the FLN in Algiers, the Tupamaros in Montevideo) have met with outright disaster. And it is also true that much of the specific terror and violence associated with urban warfare would fit into the orthodox revolutionary format as an adjunct to rural guerrilla warfare, in any case. Hence it is not clear whether the kind of urban violence with which one is more and more confronted should be taken as evidence of a basic shift in revolutionary methodology. But it should be clear, from the very nature of revolutionary scholarship, that both success and failure will be followed by serious study, and that where a formula for success can be discerned via such study, it will be circulated for widespread use.²

A most striking example of this process is displayed in Carlos Marighella's popular, and possibly prophetic, *Minimanual of the Urban Guerrilla*.³ In its mixture of ideology and tactics, one finds a detailed inventory of modern violence and its usages. Political kidnapping is there, along with assassination, urban bombing, hijacking, bank robbery and all the other components of terrorism. What makes the *Minimanual* most striking is its vision; it is not only a revolutionary cookbook of sorts, but also an expression of the insights underlying such violence. For in its outline of specific terrorist action it also contains both organizational theory and ideological motivation; in short, all that is needed to make violence not only possible but meaningful, as well. And its meaning is most obvious: the act of violence is not to be undertaken in isolation, but in concert with propaganda, the provocation of the ruling authority, the creation of a climate of fear and repression, the alienation of the people from an oppressive government.

If all that sounds familiar enough, it should. Marighella's general theme is but a modernized version of Lenin's thought about the process of subversion and revolution. But, with its emphasis on the role of the automobile and the submachine gun, with its fresh insight into new vulnerabilities (especially with regard to the banking system), and with its attention to the characteristics of the modern city (especially with regard to communications), the *Minimanual*

reveals just how adaptable that thought can be, and just how thoroughly it is prepared to match new vulnerabilities with new techniques. Marighella argues, for instance, "By taking advantage of modern arms and introducing innovations in his firepower and in the use of certain arms, the urban guerrilla can change many of the tactics of city warfare". In the *Minimanual* those tactics are set forth in detail comparable to that of a conventional military field manual.

Despite the widespread influence of such works, and despite their obvious indebtedness to earlier revolutionary thought, it would be a mistake to interpret them as mere extensions of Communist politics. There is an ideology there, to be sure, but it is not specifically Communist; as if violence itself were the essential message, the typical revolutionary tract emphasizes such violence without systematic attention to its ultimate purpose—except, of course, its impact upon the institutions, or system, or establishment against which such violence is directed. It is this kind of ideology which pervades the Marighella pamphlet, for instance, with its provocations against "the giant industrial-financial-economic-political-cultural-military-police complex" which guards and perpetuates "fascism...colonialism...the dictatorship...the North American businessmen" and all the other targets for revolutionary resentment. But aside from such polemics, there is a significant absence of detailed political thought within such works. Because of this, they are readily adaptable to local attitudes and persuasions. The contents of the *Minimanual*, for example, have been circulated among and absorbed by terrorists whose political horizons are undoubtedly different from those which inspired the pamphlet itself. It is not merely that such doctrine is thus readily adaptable to local motives; the vagueness (if not downright irrelevance) of their political origins means it would be naive to associate their violent consequences with a single, monolithic political conspiracy such as Communism. To do so would be to misunderstand not only the nature of such violence, but its potential as well.

It is obvious, of course, that terrorism and political violence carried out within a given nation can prove advantageous to other nations in a variety of ways, regardless of the motives which inspire the violence itself. The terrorism of the Black September organization not only sustains the Palestinian conflict but ultimately influences American interests (and even the American economy) as well; violent opposition to the selective service system in a given nation can easily undermine that nation's will to wage war in some distant campaign, ultimately influencing its withdrawal (as with the French in Algeria, or the US in Vietnam); the destruction of the petroleum resources of Venezuela, or the copper mines of Chile, or the bauxite industry in Jamaica, carried out in the name of anti-colonialism (or in the name of any cause at all, for that matter) can have devastating impact on the technology, and thus the stability, and thus the international power, of any nation dependent upon such resources. The world-wide energy crisis which followed the most recent outburst of Mideast war illustrates this possibility all too well.

It is not surprising, therefore, that in the general absence of any single political creed underlying contemporary violence, and in response to the very vagueness of an ideology which stresses mere revolution for the sake of destroying a system, one is tempted to substitute in place of political conspiracy the fear of some kind of strategic conspiracy. The effort to make sense out of violence thus leads from a concern for its political origins to its strategic implications; indeed, the very naivete of many revolutionary movements, as well as the uniformity of their methods amid the diversity (if not poverty) of their political objectives, could be taken as evidence that they are willing pawns within a much larger struggle, a struggle which is more a matter of international

politics than truly revolutionary politics. Thus violence can be seen as a matter of international manipulation or, as one analyst has described it, "war by proxy." Given such a view of things, the widespread availability of an essentially apolitical doctrine of violence makes that doctrine and its deeds even more sinister.⁴

The evidence fits well enough. The training of Mexican revolutionaries in North Korea, the shipment of Czech arms to the IRA, the massacre of Israelis by Japanese terrorists, Marighella's excursions to Moscow...an endless array of such facts lend credence to a suspicion that modern violence is, or at least could be, an extension of the cold war itself. In this sense, it is not only that the political slogans of specific acts or improvements can be set aside as being essentially irrelevant in the understanding of the acts themselves. After all, "Death to the pigs! Power to the people" tells one either too little, or too much, to be of any use in understanding the bombing of a bank, or the assassination of a school superintendent. Nor is it merely that such a view of things would permit one to understand the specific threats associated with violence. What is most important, it would permit one to anticipate the directions which such violence might be expected to follow.

If it is true, for example, that the eminence of nuclear suicide has made orthodox conflict unavailable, without being accompanied by any genuine resolution of the issues themselves, and if it is true (as one may also suspect) that history has a way of transforming issues into one kind of conflict or another, then one can easily envision a future within which authentically new forms of war (and hence new forms of violence) may be undertaken for the sake of satisfying strategic or international objectives. The destruction of a hydroelectric system, the crippling of a central computer bank, the acceleration of a social disorder by racist and counterracist assassination, the undermining of an economy by the pollution of an entire wheat crop...all these are but mere samples of the kind of violence which would lend itself to strategic manipulation. Although disguised in the name of revolution or rebellion, such violence could be decisive in terms of distracting a nation, or isolating it, or even paralyzing it. It would be, in effect, a new form of war, in response to which a nation would be hardly likely to fire off a salvo of intercontinental missiles. Indeed, with the rapidly shifting alliances and animosities of the modern world, no nation could be quite sure in any case just which foreign power had (or even if some foreign power had) sponsored its disasters, for such violence would lend itself, like underworld money, to political laundering.⁵

However grandiose (or even paranoid) this vision may be, it does provide a scenario within which one can appreciate more realistically the future possibilities of violence. It assumes, of course, that men can be motivated to action and manipulated accordingly; it assumes that political uses can be exploited from afar, and that what is essentially an act of strategic concern can be concealed in terms of local, internal unrest; moreover, it assumes that any given nation—particularly the industrialized nations so absorbed in world conflict—is vulnerable in ways which can be discerned and calculated. These are hardly very risky assumptions, to be sure. The existence, the success, the constant revision or revolutionary doctrine reveal the extent to which assumptions may accord with reality. In any case, the rudimentary doctrine, in terms of which strategic violence may be carried out in the guise of revolution, not only exists but shows signs of constant adaptation to a changing world. And if such change includes a shift to war by other means than orthodox conflict, one may well expect the doctrine itself to reflect such change. In particular one may expect it to concentrate more and more on the technology which produced nuclear weapons and thereby made orthodox war virtually unthinkable, for that same technology has also produced new vulnerabilities which make subversive war just that much more thinkable.

To assess this possibility, and thereby to anticipate the direction which such violence may take, one need only examine the vulnerabilities themselves. That is the second major consideration necessary for the conventional study of modern violence.

Societal Vulnerabilities

Given the traditional concepts of war, with their emphasis upon battlefield conflict between the armed forces of opposing nations, it is natural that the consideration of national vulnerabilities would focus on such things as avenues of approach, lines of supply, manpower resources, the capacity to mobilize rapidly—in effect, a nation's ability to translate national strength into military strength, and thereby to sustain itself in the face of war.

Even the extension of war beyond the battlefield and into the industrial heart of a nation does not signal a new concept of war, since the ultimate function of the manned bomber or the nuclear missile is merely to cripple or eradicate a nation's ability to wage war in the traditional sense. Hence it is not surprising that the traditional means of estimating vulnerability will seem vaguely irrelevant in the present context. For if the availability of new forms of violence may be taken as a hint that war itself can take on new forms, then surely different methods will be required for assessing a nation's strength and weakness. Just as the traditional concept of war may prove essentially obsolete in the post-nuclear age, so too may the traditional estimates of vulnerability. In particular, one may suspect that among the industrialized nations of the world the critical factors will not involve their capacity to maintain and project military power, but rather their capacity, when faced with technological interference, to continue to function at all.

To see this, one need only reflect on the truly incredible impact of modern industrialization. Technology and urbanization are, to be sure, well-known phenomena; their effects provide endless subject matter for sociologists, political theorists, moralists and theologians. Precious few of their implications have been attended to by strategists. As a result, the essential ingredients of military thought remain oriented toward the battlefield configurations of armed forces, their relative firepower, their relative strengths and weaknesses.⁶

Technology and urbanization may well have changed all this. For the impact of industrialization, reflected most dramatically in those two areas, may also mean that technology and urbanization are now the principle factors influencing a nation's vulnerability. For one thing, technology—for all its influence on communications, transportation, agriculture and what not—has made the modern industrialized state a fragile giant. For another thing, urbanization—with all its influence on the attitudes and life styles of the modern citizen—has produced a kind of social restlessness which makes the modern populace at least as volatile as its technology is fragile. Coincidental or not, the process which yielded nuclear weapons and made orthodox war unthinkable has also yielded, in these two phenomena, new possibilities for conflict. For the two together make the modern industrialized state vulnerable in ways only now becoming apparent.

Perhaps the most visible aspect of all this is the structural character of the modern city. Siege warfare is nothing new. Cities have always been subject to attack; to surround a city and block its access to food and water, to starve its inhabitants (or worse, to inflict contagion upon it by catapulting diseased bodies over its walls) are, after all, a part of ancient history. But the city of the past was besieged because it was a fortress; the modern city, being more like a clock, can be undone by merely tampering with its mechanism. It is made up of interlocking parts: electrical power

systems, sewage disposal systems, complex transportation nets, food processing and storage systems, water purification plants....the list itself is an index of the ways in which the modern city is vulnerable to interference from within. One need only witness the impact of a nighttime power failure in New York, or the effect of a transportation strike in Chicago or even, comically enough, the effect of a heavy snowstorm on Washington, D.C., to see how interdependent all the parts of such a clock-like metropolis actually are, and how interference with one part will arrest the entire mechanism. The most remarkable thing about all this is that these vulnerabilities have as yet been so little exploited by revolutionary, subversive action. Meanwhile, the process of industrialization accelerates, and with each new advance in technology the modern city grows more and more complex in its functions, and more and more a target, not so much for the guided missile as for the crowbar and the screwdriver.

Far more subtle, and perhaps far more decisive in terms of strategic importance, is the way in which the major cities of the industrialized world have become netted with each other to form an interlocking web of such functions. While the city of the pre-industrialized world was almost totally dependent upon the countryside, the modern city is actually more dependent on still other cities for the continuity of its functions. Illustrations abound: a dock strike in Boston causes a factory in Pittsburgh to suspend operations, bad weather interfering with air traffic in and out of New York City causes traffic snarls as far away as Los Angeles. Because of the economic, commercial and financial ways in which the major cities of the industrialized world have become interdependent, serious interference with any one of them—New York, London, Tokyo-Yokohama, the Rhine-Ruhr complex, the so-called Randstrom of Holland—can be expected to have repercussions throughout the rest, and thereby throughout the nations of which they are nerve centers. The energy crisis and the problem of world-wide inflation are but symptoms of this interdependence. Quite obviously, then, a nation could conceivably be attacked (that is, subverted) by merely indirect means: by interference with specific functions in certain major cities well beyond its own borders in the geographic sense, but well within its boundaries in the functional, technological sense. There is already a hint of this possibility in revolutionary doctrine; Marighella's insight into the way in which the robbery of a Sao Paulo bank will impact upon North American industrial firms (and thereby upon North America itself) is, again, but an example of how the development of subversive doctrine parallels the emergence of such new vulnerabilities.

The technology which has transformed the industrial world and netted its cities across international boundaries has also altered significantly the structures and functions of those agencies charged with governing and controlling that world. It is not merely that the telephone, the teletype, the computer, the data bank, the jet airplane have permitted the centralization of power; it is also crucial that the centralization of power has made the typical governmental apparatus vulnerable on a much more enlarged scale. The kidnapping of a British executive in Rio, or the murder of an American diplomat in Khartoum, or the seizure of the Israeli high school in Maalot are acts whose meaning is dependent on the way in which the governments concerned are in direct contact with (and hence instantly responsible for) the events themselves. The hijacking of a commercial aircraft in Rome as a prelude to the demand for release of political prisoners in London would not be possible without the centralization of power. But with it, with the direct contact which modern communications provides, governmental power can now be challenged, threatened, attacked at any point within its sphere of interest. The implications are clear the very technology which has made the modern bureaucracy so powerful has also brought with it new vulnerabilities, just as it has with the industrial system for which such governments are responsible.

And finally one must consider, amid all this technology, the impact of television. With it, the weaponry necessary for a new form of war is completed, for weapon it is in the hands of whoever can capture its attention. With it, the provocation of violence can impact not only upon a technology, or a government, but upon an audience of millions, or hundreds of millions, multiplying and expanding the effects of such violence beyond all measure. The influence of television on the Vietnam war is well known, if not well understood; its role in the political protests and riots of 1968, particularly those which occurred in Paris, Washington and Chicago, is suggestive of the hypnotic, almost virulent way in which isolated events can be transformed into nationwide outbursts of violence. (One need only speculate upon the possibilities of martyrdom which awaited the SLA trapped in Los Angeles, had they only realized their deaths were being televised). Indeed, if violence is the message of revolution and rebellion, one must conclude that television is the virtually perfect medium for that message. For like the rest of modern technology, television is a tool with built-in dangers; the very device by which a mass audience is entertained is a device by which the same populace can be excited, agitated, influenced by violence. In short, television means the act of violence is no longer a local event, but an event which can absorb an entire nation.

In turn, the urban populace itself is politically and psychologically vulnerable in a way which underscores future violence. Urban disorder is not, of course, a strictly modern phenomenon; violence within the city is as old as the city itself. What is modern, however, is the extent to which the rapidly accelerating process of urbanization has produced, as a consequence, a rapidly accelerating degree of restlessness within that part of the world which has followed the path of industrialization. The process of urbanization is well-recorded: while only 2.4 per cent of the world's population resided in cities of 20,000 or more at the beginning of the 19th Century, by 1950 that percentage had increased ten-fold, and if current United Nations estimates prove correct then more than half of the world's population will be urbanized by the end of the present century. In terms of absolutes rather than percentages, that entails an urbanized mass approaching three billion people—most of them subject not merely to the acknowledged stress of urban life, but also to the poverty, squalor and frustration which characterizes large segments of almost all major cities. The political instability of such masses can hardly be exaggerated. What is sometimes overlooked, however, is the extent to which governmental power is dependent upon the pacification of its own populace. But given that dependence, and given the volatile nature of an urbanized mass, and given the relationship between rebellion, violence and subversion, one can hardly overstate the vulnerabilities of the modern state.

What this brief sketch suggests, then, is that in the modernized world the consequences of technology and urbanization are manifold. To the extent that it has become industrialized and to the extent that it has become dependent on technology, the modern state is structurally fragile; to the extent that it has become urbanized, its populace is politically volatile. In terms of conflict, in terms of the dynamics of war, this suggests a range of vulnerabilities yet to be exploited by subversive violence. But the possibilities of violence are more than apparent, and if the history of subversive doctrine is any indication of its future, then that doctrine will no doubt address itself to these possibilities. In short, one can fully expect not only the intensification of such violence, but the emergence of new forms of violence as well. Moreover, one may also suspect that such violence may not only take new forms, but may in fact be the expression of an essentially new form of warfare itself.

New Form of Warfare

If nuclear stalemate and the shifting vulnerabilities of the modern world do suggest new and different forms of conflict, and if one may reasonably expect such opportunities to inspire the development of an appropriate subversive doctrine, then one may also reasonably expect the industrialized world to seek new and more imaginative ways of guarding against such subversion. The contemporary state of conventional/unconventional warfare theory will provide some index of whether or not that latter expectation is actually reasonable, as well as identifying some of the inherent problems to be faced in adapting the theory to the challenge.

The American concept of war is, one may argue, an essentially simple one: the maintenance of a armed force capable of deterring aggression by foreign powers and, if deterrence should fail, capable of expansion, deployment, engagement with and the containment of the armed forces of those foreign powers. Beneath this fundamentally simple concept lie traditions which are complex, if not in fact contradictory: war is to be fought only as a matter of defense, although offense is admittedly a principle of war; a "large standing army" is contrary to the interests of the nation, although some such power-in-being is necessary if deterrence is to make sense; the function of the armed forces is decidedly external and non-domestic, although the most persistent threats to the national security may well be internal and domestic. It is little wonder that the theory remains so simple, as if simplicity were an antidote to the confusions which these deeper traditions invite. In any event, it is a theory which saw the nation through both world wars and Korea and, whether or not actually applied there, it underlay the public effort to explain the American involvement in Vietnam. As a concept, the idea that war is a matter of conflict between the armed forces of opposing nations is, of course, essentially Napoleonic and Clausewitzian. One might even label it the nation-versus-nation model of war, with its emphasis upon the role of national objectives, the processes of international diplomacy, the extension of politics into armed confrontation, the engagement of armies and navies, the resolution of international issues, the return to peace. It is a model of war which is so conventional that even the utilization of irregular forces, operating behind the immediate battlefield, gives rise to such terminology as "unconventional war."⁷

It is not the only available mode. The doctrine of subversion described earlier is, after all, a reflection of a basically different model of war, within which the fundamental form of conflict is not between nations at all, but between economic classes. In terms of the class-versus-class model of war, both the issues and their resolutions are seen differently; instead of national objectives, one must think in terms of class considerations; instead of international politics and the confrontation of massed armies, one must think of a process in terms of which the oppressed class achieved victory through subversion, insurrection and, if necessary, civil war. It is, of course, the Marxist-Leninist alternative to the Napoleonic-Clausewitzian model. Given either one model or the other, the world and its events will be understood quite differently—as differently, say, as the way in which the universe is understood when it is conceived in Copernican, heliocentric terms instead of Ptolemaic, geocentric terms. Indeed, the act of domestic, subversive violence is *the* phenomenon around which war revolves in the Marxist-Leninist model, but only a nuisance and an irritant (and hence, perhaps, an irritant which can prove fatal) in terms of the Napoleonic-Clausewitzian model.

As in science, where one experiments, (even though the experiments themselves are more an expression of the model which one employs rather than a test of its truth) so too in war and politics do the opposing models give birth to events themselves. The primary function of subversive doctrine is, after all, to make revolution possible, to provide a technique in terms of which events

can be caused to happen, just as the primary function of orthodox manuals is to cause the logistical, organizational, battelfield events in terms of which conventional war becomes possible. It is not surprising that the events of the one are obscure, if not unintelligible in terms of the other (one need only compare opposing descriptions of the Vietnam War); what is surprising, given that the meaning of an event is dependent upon the model in terms of which one views it, is the way in which adherents of the one may set out to impede and obstruct the events of the other. In terms of conventional war, this means interdicting the revolutionary process before it can be brought to fruition, as in the Dominican Republic intervention of 1965. In terms of revolutionary war, this means not only undermining the morale and loyalties of the conventional armed forces but also the exhaustion of these armed forces in a war without targets, as in the Cuban revolution of the 1950's. The real task confronting contemporary strategic thought, then, is one which invites mental disorder, for the task at hand is to be able to see events in terms of both models, if not simultaneously, then at least in rapid succession.⁹ This is nowhere more true than in the case of internal violence, the kind of violence suggested by the vulnerabilities of the modern industrialized world.

Conventional military thought is already capable of a certain degree of such adaptability; what might be called a "dual-warfare" capability is reflected in the US preparedness to engage in conventional conflict as well as interdictory conflict. Just how prepared it is to engage in the latter is, no doubt, a matter of speculation; underlying much of the controversy about the Vietnam War, as well as the relative silence about what that war actually meant, is a widespread attitude that it was the wrong *kind* of war, a war which went sour because it could not be fought in conventional terms—in short, an attitude which suggests how very limited this "dual-warfare" adaptability may really be. Nevertheless, the commitment is there, at least in principle, and the essential question is whether or not conventional military action of any sort can prove equal to (or even appropriate with regards to) the kind of unconventional, subversive violence of which the future hints.

From the American standpoint, the difficulties associated with this question are compounded by the kinds of traditions alluded to earlier. For it is not merely a question of being blinded by the model in terms of which war is viewed as a nation-versus-nation, army-versus-army kind of conflict; it is also a question of the restraint imposed by the traditions which underlie this model. For one thing, there is the tradition of non-intervention, however abused. And yet the phenomenon of netting described earlier means that a highly industrialized nation may be attacked, and attacked severely, by interference with the industry and technology of foreign nations with which it has become interdependent. To a very large extent, this is what strategically oriented violence would amount to. For another, there is the military tradition of non-involvement in domestic affairs. And yet the crucial vulnerability of a technology which has become urbanized is, of course, within its own domestic boundaries. There are no doubt other factors, but the traditions of non-intervention and non-involvement in domestic matters suggest that whatever is to be done about the future prospects for subversive violence, it is likely to be achieved by the strictly conventional armed forces of the United States.

That would not mean, of course, that the threat cannot be met. But it would mean an increasingly significant policy role in the attempt to prevent and counter domestic violence. It would undoubtedly mean an increase in domestic surveillance agencies, and an increased effort to guard utilities systems, factories, power plants and the other technology without which the nation cannot

function. It would probably mean an increase in the activities of such agencies as the CIA. Moreover it would mean a reconsideration of all the rules of violence and counter-violence—to include, for example, how kidnapping is dealt with, how hijacking is dealt with, how one deals with the taking of hostages and the threat to carry out their execution unless specific demands are met. Of course, it undoubtedly means a renewed emphasis upon removing those social ills which provoke violence and make an urbanized population so prone to endorse and engage in violence. In effect then, the perils of modern violence are likely to require new agencies, new activities, new attitudes, new forms of defense in response to the new forms of violence and even new forms of war. From a standpoint of security planning, the obvious task is to assess the nation's vulnerabilities in detail, and to identify those agencies, as well as those techniques, required to match these vulnerabilities.

Since this is at least theoretically possible, the threat of modern violence does not mean the industrialized nation is a mere eyelash away from total disaster. At least it does not mean that as long as the threat is viewed within terms of an essentially rational (and hence optimistic) perspective, a view which includes the belief that intelligence controls events and that the future is what one does with it.

That is, unfortunately, not the only perspective available. There is one other which one may adopt, and within its scope the threat of violence will appear to be something well beyond the possibilities of containment.

Assessing Contemporary Violence

The attempt to assess contemporary violence in terms of strategic models is an essentially rational effort, despite the difficulties which follow from the availability of different models. For either of the two models examined will characterize violence as deliberate, calculated action, action designed to bring about political or strategic consequences. For this reason, the preceding sketch involves an implicit distinction between subversive violence of a political, revolutionary nature and other categories of violence which are merely anti-social. Included in this latter consideration would be homicidal, suicidal, even parental violence, as well as criminal acts of vandalism, arson, destructive rage and all the other expressions of an essentially irrational urge to strike back at society, someone or something. Being irrational, such violence is inherently unpredictable in terms of specific events; being widespread, it is a constant preoccupation of domestic security agencies as well as sociologists and psychologists. The inevitable question which one must ask is whether or not such violence is, in fact, irrelevant to the subject of war and politics. The answer may well be that it is not only not irrelevant, but that it is in fact central to the issues at hand. For there is a sense in which all violence is ultimately political, since even the most impulsive crime is, finally, an act against civilization itself. And, in a darker sense, one may also suspect that civilization involves burdens whose complexity exceeds human intelligence, so much so that the challenge of modern violence cannot be expected to be met.

Freud, for example, has argued that civilization guarantees discontent, resting as it does on the repression of human nature. In turn it has been argued that the inclination to violence is not only instinctual in itself, but is an inevitable duty for those who would free themselves of institutional restraint; that it is the purest form of self-expression; that it is, as Fanon put it, "a cleansing force" and, has Hegel hinted, "the means by which history fulfills itself."¹⁰ Within the general framework

of such a vision, one may well be led to see virtually all forms of violence—criminal, political, social, even personal—as expressions of a kind of war which is fundamentally different from that envisioned within the two models already cited. For lack of better terms, one might describe such a war as nothing less than civilization against itself. Such a war would be beyond anyone's control.

It is not an optimistic view of things. In light of the fragilities of the modern world (fragilities which would be more appropriately described, within the terms of this final perspective, as temptations rather than vulnerabilities) it is a view which is more than awesome in its implications. For it suggests that for each new form of violence available, some parallel form of madness will emerge.

As models go, it offers more for the pathologist than the strategist, to be sure. But even strategists can hope that it will prove, finally, to be the least appropriate vehicle for understanding violence and its future.

NOTES

- 1— A sample of this quest is Lenin's "Partisan Warfare", reprinted in Jay Mallin's *Terror and Urban Guerrillas* (University of Miami, 1971). In it one discerns a scientific conviction that since social conflict involves natural laws, the control of such events awaits only the discovery of the laws themselves.
- 2— A review of the current status of this subject is contained in Robert Moss' *Urban Guerrilla Warfare* (International Institute for Strategic Studies, 1971). Among other things, Moss notes that the principle limitation of urban warfare is the inability of the terrorist to bring about mass public uprisings. One may suspect that this problem is the subject of considerable reflection among revolutionary theorists.
- 3— The *Minimanual* has been widely circulated and is available as an appendix in the Moss volume (see note 2). Other samples of such readily available "cookbooks" of subversive violence are the *Handbook of the IRA* (Paladin Press, 1971) and *The Organizers' Manual* (Bantam Press, 1971).
- 4— A most persuasive analysis of this possibility (the possibility that a great deal of contemporary revolutionary violence is actually disguised strategic violence) is provided by Brian Crozier, Director of the Institute for the Study of Conflict, in the two articles "The End of the Cold War?", *National Review*, 16 March 1973 and "The Soviet Involvement in Violence", *Soviet Analyst*, 6 July 1972.
- 5— Given the isolationist consequences of the Vietnam War, it is at least tempting to interpret that war as a model (if not an example) of the way in which prolonged violence can exhaust a nation and alter its role in international affairs. The problem with the manipulation theory is that events have never been quite so predictable; indeed, who is to say with certainty just what long-range impact the Vietnam war may have on US strategic thought?
- 6— A notable exception is the article "Military Implications of Societal Vulnerabilities" (*Parameters*, August 1973), co-authored by Robert Leider and Charles Bunnell. In it they argue, among other things, that the concepts of force and military power may require dramatic revision in the face of modern vulnerabilities.
- 7— The power of the conventional nation-versus-nation model is reflected the Lidell Hart's *Strategy* comment that there is something essentially "immoral" about non-conventional war—since it "undermines faith in governmental institutes" and leaves behind (as with the Middle East after Lawrence) a tendency to rebellion and disorder. Given the premises underlying this kind of insight, it is not surprising that the integration of unconventional warfare techniques into the nation-versus-nation model is so difficult.

- 8— Although its subject matter is science itself, and not political revolution at all, Thomas Kuhn's *Structure of Scientific Revolutions* (Harper, 1965) may offer the strategic thinker a valuable insight into the role which models and paradigms play, not only in understanding the world but in rearranging it as well. The underlying premise of the present paper, in fact, is the suspicion that modern subversive violence may require some such new model, not only for its understanding but for its control.
- 9— However difficult this task may be for, say, American strategists, it is undoubtedly no less difficult for Soviet or Chinese strategists trained in terms of class warfare theory. Indeed, the very possibility of manipulating revolutionary violence for strategic purposes would appear to require the ability to shift back and forth from the class warfare model to the international model.
- 10— The literature on violence is enormous; an excellent bibliography is contained within T.R. Burr's *Why Men Rebel* (Princeton, 1970), an essentially optimistic study in which it is argued that while mankind has the capacity for violence, it has no inherent need for violence. Whether or not this is so is actually the central issue in almost all reflections on violence.

PANEL VII

***EFFECTS OF THE MIDDLE EAST WAR AND THE ENERGY
CRISIS ON THE FUTURE OF THE ATLANTIC ALLIANCE***

Panel Chairman: Brigadier General Richard C. Bowman, USAF, Deputy Defense Advisor, US Mission to NATO.

Panelists: Ambassador J. Robert Schaetzel, Ret., Former American Ambassador to the European Communities; former Deputy Assistant Secretary of State for Atlantic Affairs.

Dr. Harold C. Deutsch, Faculty, The National War College.

Rapporteur: Captain Edward F. Welch, USN, Faculty, The National War College.

EFFECTS OF THE MIDDLE EAST WAR AND THE ENERGY CRISIS ON THE FUTURE OF THE ATLANTIC ALLIANCE

Brig. Gen. Richard C. Bowman, USAF
U.S. Mission to NATO

During the 1970s, a number of strong pressures have shaken the North Atlantic Treaty Organization. Continued emphasis on military progress on the eastern side of the Iron Curtain, combined with reduced public support in the West, has threatened NATO's ability to fulfill its central mission. Political instability in most of the NATO member countries has cast doubt on the strength of national commitments and the willingness of members to cooperate with each other. The economic and political development of the expanded European Economic Community, with its ultimate goal of European Union by 1980, has raised questions as to whether the Atlantic partnership or even a partnership with European flank countries will continue.

The October War in the Middle East burst upon NATO with dramatic impact. Many observers felt that the failure to reach any sort of NATO policy consensus on such a critical issue would ultimately result in the dissolution of the Alliance. But NATO did not dissolve. On the contrary, it survived a difficult experience which, for many, clearly signalled the need for renewed cohesion and cooperation. In the longer run, the war and its aftermath may mark the start of countervailing pressures which will preserve and strengthen the Alliance.

The Warsaw Pact - NATO Security Balance

The October war reminded the world that security realities should not be disregarded. The Soviets demonstrated again that they possess a dynamic weapons development and production capability which they are willing to put to use, if the opportunity looks even a little promising. This demonstration did not pass unnoticed. Secretary Schlesinger recently summed up the reaction of many in NATO: "Detente is not something that is free floating; it rests on a solid equilibrium of force."

The military forces of the six nation Warsaw Pact total 4.5 million men, of whom 3.8 million are Soviets, while the NATO Alliance of 15 countries has 5.6 million men, including 2.2 million Americans. But these raw numbers must be viewed in the light of certain major strengths and weaknesses on both sides. The Pact is strengthened by standardized doctrine and equipment, but weakened by uncertainties about satellite loyalty. Could the Soviets depend on the Czechs? Would Soviet forces be needed in the satellites to deal with dissidents? Would East Germans attack West Germans? NATO would have the advantages of defensive positions and the moral strength of the defender, although allowance must be made for the large contingents from countries such as Greece and Turkey, which do not have sufficient modern equipment.

In the critical Central Region of Europe, the Warsaw Pact has 925 thousand ground force personnel, including 462 thousand Soviets, located in East Germany, Poland, and Czechoslovakia; NATO has 777 thousand, including 193 thousand U.S., in West Germany and the Benelux countries. In the same region, the Pact has 15,500 tanks versus 6,000 for NATO. However, NATO

has more anti-tank weapons, and, with rapid reinforcements, an advantage in tactical air capability due to longer ranges, heavier payload, and more accurate weapons.

Although forces in the Central Region are not too far out of balance, NATO has the major problem of fifteen different national approaches, including that of Iceland, which has elected to maintain no military forces, and that of France, which does not participate in Alliance military headquarters or military planning. The four largest NATO countries (US, UK, W. Germany, and France) all have their own types of tanks. US rifle ammunition is a smaller size than that of other allies. There are over a dozen different tactical aircraft, many of which can only operate effectually from their own airfields. And logistics is a national responsibility, with each country maintaining its own supply lines. In this situation, rapid reinforcement of one country's forces by those of an ally becomes difficult.

The Role of the U.S. in NATO

Many Americans do not understand why US troops are still defending Europe nearly 30 years after World War II. So far, however, Congress has accepted the argument that three decades of peace in Europe are worth the cost of keeping US troops there, especially as it would cost almost as much to maintain them at home. While aiding in the defense of Europe, those US forces ultimately exist for the defense of the United States.

Of the two super powers in the world today, one has 3.8 million men under arms while the other has only 2.2 million. One spends 8-10 percent of its GNP (and probably much more) on military forces, while the other spends about 6 percent. Yet an effective security balance exists because the US is a member of NATO. To this Alliance, the US with its 2.2 million men contributes strategic capabilities and important well-armed general purpose forces. Europe contributes only minor strategic forces, but over 3 million men for general purpose forces. Neither the US nor its European allies could provide adequate security with current levels of defense capability if it were not for the Alliance. If the two sides of the Atlantic partnership were to decide to go it alone, each would have to move toward the much higher level of effort maintained by the Soviets -- Europe to preserve its independence, and the US to avoid the gradual subjugation of its friends around the world and an even more expensive "fortress America" existence. Nor is it likely that the US could avoid involvement in a European war when the Middle East conflict led to a worldwide alert of US forces.

The results of the October War have reinforced the argument that collective security is the best route to adequate defense. In that 18-day conflict, Arab forces displayed sophisticated electronic warfare equipment as well as anti-tank and anti-air weapons in concentrations far beyond those currently available in most NATO countries. Both sides used modern tanks in large numbers with over 2000 reported damaged or destroyed.

NATO will have to provide large quantities of new equipment in order to maintain an effective deterrent against military pressures from the East. Fifteen NATO nations working together can provide this new equipment at much less cost than each attempting to do the job independently.

Nato Strategy

The effects of the Middle East war on NATO can only be assessed in the context of NATO strategy and resulting security requirements. Conventional war in the Middle East, no matter how technically complex, would have little significance for a purely nuclear defense.

From the end of World War II until the early 1960's, US policy emphasized deterrence of major war by threat of strategic nuclear retaliation. NATO conventional forces in Europe served only as a shield to block any Soviet offensive until strategic nuclear forces could destroy Soviet cities. Nuclear deterrence had abolished major war in Europe.

Unfortunately, as early as 1949, the Soviet detonation of a nuclear weapon forecast a time when the US would no longer enjoy strategic superiority. Consequently, military thinking began to consider the deterrent value of tactical nuclear weapons. Thus, by the mid-1960's, when the Soviets achieved a major strategic capability, the US had deployed some 7,000 tactical nuclear weapons in NATO Europe. But as the Soviets developed tactical weapons of their own, NATO realized that a tactical nuclear battle might ensue with uncertain results and that the level of destruction would be even worse than in conventional war.

For most Europeans, therefore, optimum strategy remained deterrence through the US nuclear threat to Soviet cities, even though the odds were rather low that the US would carry out that threat in view of the Soviet capability to retaliate. For some American strategists, on the other hand, the solution was to put the nuclear genie back in the bottle and return to a purely conventional defense. A few were even in favor of accepting another Dunkirk if necessary, fighting back to the Continent, as in World War II, rather than ever using a nuclear weapon. But the fallacy in this thinking was that a purely conventional defense would not ensure deterrence. There would always be some military leader who would invent a new Schlieffen plan or blitzkrieg technique that would appear to guarantee victory -- given the advantage of choosing the time and place of the attack. And Europeans pointed out that the US might not be so willing to give up nuclear deterrence if the Soviet tank force were deployed on the US-Canadian border, instead of in Central Europe.

Consequently, the approved NATO strategy became neither massive retaliation, nor tactical nuclear war, nor a conventional World War III, but "flexible response". This strategy was designed to preserve the deterrent value provided by each of the three levels of escalation, while reducing the likelihood of suffering the worst consequences if an attack should occur.

Any conventional attack would be met by a conventional defense designed to prevent significant penetration of NATO territory. Even if some stratagem should succeed against the conventional defense, attacking forces would be forced to operate in concentrated formations against which tactical nuclear weapons would be effective. The attacker could expect no great advantage from continuing the conflict at the nuclear level, for he would be fully countered in that type of warfare as well. Moreover, there would be the possibility of selected strategic strikes against his supply lines, and the ultimate danger of strategic war.

Some have argued that it would be less expensive to disband conventional forces and depend on fewer men equipped with many small nuclear weapons. But if NATO lacked conventional capability, the attacking units could move in dispersed formations against which nuclear weapons would not provide much advantage.

The NATO strategy of flexible response, including strong conventional forces, is no longer just an idea in the minds of strategic analysts. In support of this strategy, our European allies, in the period 1973-1976, plan to acquire 1550 new tanks, 3000 other armored vehicles, 1150 heavy and medium anti-tank weapons, 62,000 light anti-tank weapons, and over 400 new tactical aircraft. Similarly, the US is equipping its 193,000 ground personnel in Central Europe with new anti-tank weapons, and will soon introduce several new types of tactical aircraft.

The October War proved that effective conventional defense requires sophisticated equipment in large quantities, but it also suggested that NATO might have several unexpected advantages. Perhaps the most significant was the evidence that even large numbers of tanks can be stopped. New guided anti-tank weapons proved highly effective and would be even more useful in defending Western Europe, which offers better concealment for anti-tank crews than the desert affords. NATO countries will have to procure more of these weapons, but that will be much less expensive than trying to match the Warsaw Pact in numbers of tanks.

Another lesson was that properly protected tactical aircraft can survive and play a key role in a modern battle. Shelters made aircraft nearly invulnerable on the ground, which confirms the value of the NATO program now approaching 1700 shelters. Soviet anti-aircraft missiles were a problem, but Israeli aircraft were still able to play a key role in turning back enemy ground attacks and driving enemy aircraft from the skies. NATO can expect similar success because its newer aircraft can outperform those of the Warsaw Pact in range and payload, and would be equipped with highly accurate guided weapons for use against attacking armored vehicles.

Political and Economic Effects of the Middle East War

The events of October have also affected the potential for co-operation among NATO's fifteen nations. In 1973, serious doubts were raised about the relationship between Europe and the United States. Henry Kissinger's speech on April 23, 1973 calling for a new "Atlantic Charter" stemmed from a need to dispel the serious illusion that the Atlantic partnership was becoming less important. In the US, this feeling was encouraged by the expansion of the EEC to nine members, including the United Kingdom, and was further reinforced by occasional trade irritants that seemed to imply a European colossus working to eliminate US economic interests. This attitude added to the pressures of detente and isolationism, might produce the few additional votes needed in the US Congress to require withdrawal of large numbers of US troops from Europe.

Similarly, many Europeans also saw the expansion of the EEC as an event offering opportunities for eventual increased political and military strength. They considered a security link with the US still necessary, but perhaps not in the long run. At least the US partnership would have to take second place to the cause of European Union.

A new Atlantic Charter was needed to bring both sides of the Alliance back to a recognition of their vital interests, requiring that the US maintain its troops and that Europe continue to work for economic cooperation with its allies across the Atlantic.

But in the summer of 1973, the Nine began to draft their own Atlantic Charter, with the intention of strengthening the EEC rather than reviving the Atlantic partnership. Some of them were reported to feel that Kissinger was merely seeking a Western Europe divided and subservient. The drafting of the declaration was undertaken as a European project, not as a joint effort with the US.

It was at this point that the October War intervened, and its first effect was to further exacerbate the US-European difficulties. Several days after the start of the Soviet airlift, the US began sending supplies to Israel. The Allies were kept informed, but they had no real opportunity to influence US policy. US actions resulted in Arab oil cut-off threats against Europe, which depended on the Middle East for 80% of its oil. Also, US-Soviet consultations and US mediation left Europe standing in the wings. The European reaction came on November 6 when the Nine reached agreement on a Middle East Resolution, without consulting the US.

While the Middle East Resolution first seemed to signal a united Europe at odds with its partners on the other side of the Atlantic, the document soon appeared in a different light. It proved to be a European concession to the Arabs, and made no provisions for relief or assistance for the Netherlands, whose oil supply had been cut off. European weakness was apparent, by the fact that the Soviets had been the first to call for an oil cut-off, and that in any future crisis the Soviets would have considerable influence on the Arab nations.

With energy deficiencies exposed, the Alliance took on a new significance for the Europeans. The US, though a wasteful consumer of oil, was also the world's largest producer, able to continue without Arab supplies and offering to help the Dutch. Also, the US had responded quickly when its help was needed by Israel, despite considerable danger of confrontation with the Soviets. The unequalled US airlift capability had provided critical munitions and equipment in a matter of hours. When the threat of Soviet intervention occurred, the US immediately placed its forces on worldwide alert. Europe complained about not being informed rapidly enough, but in fact the alert was a great bonus for NATO. The Alliance had always been haunted by the possibility that the Soviets might one day prepare an attack while the Allies sat idly by, paralyzed by fear and political indecision. After the October War, that no longer seemed very likely.

Most Europeans eventually recognized that it was not in their interest to play an active role in the Middle East crisis. Europe was subject to blackmail while the U.S. was comparatively strong. And, most important, the final outcome of the war was the best that could have been hoped for, with neither side dominating and the possibility of compromise enhanced. At the Washington Conference on energy, French opposition to the Atlantic partnership suffered a fatal rebuff from the other European Allies.

Financing the Alliance

While the October War in many ways helped to renew NATO, the resulting energy crisis will have a long-term economic effect which, if not countered, could make the Alliance ineffectual. The increased price of oil will reduce resources available for defense and create chronic balance of payments difficulties. This occurs at a time when new equipment is needed and more equitable balance of payments arrangements are likely to be of primary importance in determining levels of US troops in Europe.

One indication of US attitudes was contained in the report of the 1974 American Foreign Policy Association study groups comprised of more than 50,000 citizens. These groups strongly felt that the US should not unilaterally reduce its troops in Europe while talks on Mutual and Balanced Force Reductions were in progress. However, many participants felt that reductions should be made in the future if the European nations do not help the US with the financial burden.

The proper sharing of the burden is, of course, a difficult judgement to make. The United States defense budget amounts to 65% of total NATO defense budgets. But it would be only 57% if corrected for higher pay scales, and that figure is fairly close to the US share of 53% of the NATO Gross National Product. Also, some deduction would have to be made for US defense expenditures in other parts of the world. (This is not to imply that every European country is doing its fair share). With respect to forces stationed in Europe, the US provides only 10% of the ground forces, 20% of the sea forces and 25% of the air forces. The proportion of overall effort may not be far out of line, but it remains to be seen whether European governments can sustain and improve their defense programs despite the economic impact of increased energy costs.

Balance of payments problems will also prove difficult to solve. The Jackson-Nunn Amendment, passed in November 1973, required that the Europeans eliminate the US balance of payments deficit due to US troops stationed in Europe, or that the US troops in Europe be reduced by the percentage of the deficit not offset. For fiscal year 1974, there is a good chance that European countries will fully offset US expenditures of approximately \$2.1 billion, for the most part by European defense purchases in the United States. However, the Europeans will have far more difficulty in future years when they face a heavy outflow of currency due to the increased price of oil.

A New Level of Cooperation in NATO

NATO's future as an effective Alliance will depend on whether NATO can evolve from 15 separate and distinct defense programs to a single coordinated effort. There is no other way that security can be maintained, barring acceptance of a reduced standard of living in the West, or insistence on a greatly increased standard of living in the East. Without more extensive cooperation among its members, NATO will not be able to maintain effective deterrent forces.

In the words of Kissinger's "Year of Europe" speech, "we must strike a new balance between self-interest and the common interest." National authorities are under strong pressure from military services, industries, and segments of the voting public to seek specific short term national interests, at the expense of Alliance interests that involve longer term economies.

After nearly losing World War I because of ineffective command coordination, the Allies worked hard to reconcile military interests, creating a European command under Eisenhower in World War II. NATO has learned from this experience and has established SHAPE (Supreme Headquarters Allied Powers Europe) as well as necessary subordinate international headquarters. Unfortunately, these NATO commanders do not have much influence on national military policies. They can recommend force and equipment goals and conduct operational inspections, but they have had little success in standardizing tactical doctrine and equipment. Each national service has its own likes and dislikes as to how weapons should be configured and employed. National armies, navies and air forces insist on maintaining the full range of functions and special capabilities even though some of these might be more efficiently contributed by other members of the Alliance. Many national commanders are reluctant to depend on an ally for any sort of combat or logistic support, although they trust the same ally to hold the adjacent sector of the NATO defense line. In addition, Alliance defense cooperation can upset national military career patterns, especially if an entire function is transferred from one country to another.

Even more damaging to the Alliance is the lack of cooperation in research, development, and procurement. National industrial representatives are usually more interested in competing than cooperating. Each hopes to develop a system that will be used by all the Allies plus Third World countries, but the usual result is development and adoption of four or five different national systems all for the same purpose, eliminating any possibility of common logistics support. Dr. John S. Foster, Jr., former U.S. Director of Defense Research and Development, estimated that there is over \$1 billion of unnecessary duplication in R&D each year within the Alliance. This figure does not include the cost of duplicate logistics and training systems, nor the military costs of compensating for non-standard equipment. General Johannes Steinhoff, Chairman of the NATO Military Committee, in his retirement speech in April 1974, said that unrestrained national competition in armaments "has helped to make NATO look today like an army museum."

During the 1950's, there was considerable standardization in NATO because the US provided most of the equipment. An important degree of standardization also resulted several years later when European countries began a major cooperative program which developed and produced a multi-purpose version of the US F-104 fighter aircraft. In other areas, however, cooperation and standardization have been very limited. The US, for its part, has not done much to improve the chance for cooperation, attempting to develop a US version of nearly every weapon. Some US representatives have taken the attitude that NATO countries should buy all their equipment from the US with European energies devoted to "minding the Riviera."

NATO is now at a point where real progress can be made toward increased cooperation. In the 1970's the US has recognized that the high cost of R&D combined with pressures on budgets from civilian needs will make it impossible to develop all of the necessary new weapons in the United States. As a first step, three European mobile anti-aircraft missile systems—the British RAPIER, French CROTALE, and French-German ROLAND—are under consideration for US forces. The United States must adopt a reasonable number of European systems in order to break down the psychological and economic barriers resulting from "buy American" policies and the resulting European reaction.

In Europe there are a number of cooperative weapons programs involving more than one country, such as the Franco-German ROLAND anti-aircraft system and MILAN and HOT anti-tank missiles, the British-French helicopter program and JAGUAR attack aircraft, and the

British-German-Italian Multi-role Combat Aircraft. The Eurogroup in the Alliance, composed of most of the European countries except France, is working toward additional projects, with emphasis currently on the selection of a common replacement aircraft for the F-104. But there would still be far too much duplication of effort if the Eurogroup, France and the US each went its own way. Also, NATO would not fully realize the great military value of standardized weapons and interchangeable logistics support.

The most promising forum for progress is the Conference of National Armaments Directors, which includes both the US and France. The CNAD meets twice a year, with its subordinate representatives and multiple armaments panels meeting at regular intervals throughout the year. In the past, CNAD armament groups have often served as forums for competition between national armaments programs, rather than as organizations for achieving cooperation. But now the CNAD is putting more emphasis on cooperation, and the weight of effort is beginning to change. Eventually, it may be possible to apportion development tasks among the various countries, with all members pledging to buy or produce under license the winning prototypes. Recent progress includes an agreement between the United Kingdom, France, Germany, and the US to participate in common testing of new tank guns, with the aim of reaching agreement on a single gun to be produced under license. It is hoped that programs for a new tank, new infantry weapons, and other next generation systems will follow.

NATO committees are also working on rationalization and specialization of military tasks, in hopes of achieving more effective defense for resources expended. This simply means a more rational allotment of tasks, giving greater weight to overall Alliance interests and less to purely national interests. The result could be an exchange of tasks involving combat roles, logistics, and training functions. Reserve forces might take over some tasks performed by active forces. Study of specialization proposals began after the June, 1973 Ministerial Defense Planning Committee Meeting, but the wide range of possibilities and the complex analyses needed will require a continuing major effort in NATO. Unless programs are carefully developed, both NATO and national interests might suffer, killing the whole rationalization effort and losing the great benefits that might eventually result from step by step progress.

NATO can and must improve cooperation of all types if it is to maintain security within the limits of available resources. More of the planning and decision processes must be moved from national capitals to NATO headquarters. This means strengthening the International Staff and national missions in Brussels by transferring additional people from capitals. Nations will still have the final say, but more of the work must be done at NATO where Alliance interests receive greater attention. National leaders will have to take a hard line against military and civilian interest groups resisting this trend, while at the same time doing everything possible to ease the transition. For example, it may be necessary for some national military services to accept specialized career personnel from other countries on a long term exchange basis as the latter countries make adjustments in national functions.

The task before NATO is to move toward a single efficient defense program, despite the continued independence of its members. We know from history that this task has seldom, if ever, been successfully accomplished. To succeed, every member of the Alliance, including the United States, must accept a degree of limitation on national sovereignty. We should not be too terrified by

this prospect. We already accept many limitations in the form of budgets, economic interest, treaties, and international agreements. The difficulty is that nations are not used to accepting limitations due to an Alliance. In fact, there is a tendency to do everything possible to prove that one's country is completely independent and not submitting to the dictates of Allies.

A landmark NATO declaration was signed in June, 1974 which should mark the start of new cooperation in the political and economic areas. The movement for European union presents the greatest problem in this respect. In the effort to prepare a declaration acceptable to the US and the European Economic Community, trouble developed because the EEC worked out common positions which were then offered to the US on a nearly non-negotiable basis. The Community has great difficulty developing common positions and fears that US participation in that process would mean US domination or, at least, paralysis of the EEC. European countries which were supported by the US would be in a strong position to resist compromise, preventing development of Community policy and, consequently, delaying progress toward European Union.

One solution to this sort of dilemma would be to discuss economic matters within NATO. The NATO Economic Committee, instead of restricting itself to analyzing the costs of defense and to studying Communist economies, could lay the ground work for continuing economic consultations in the North Atlantic Council. Detailed economic agreements would not be reached in the NATO forum, but discussion should help to avoid the sort of vague, but very serious, problems that have arisen in the past. The aim would be for broad consultations, not detailed economic negotiations more appropriate for the GATT, the OECD and the IMF. Since NATO includes the US and Canada, eight members of the EEC, and the NATO flank countries, consultations would be broad enough to prevent interference in the internal development of the EEC.

NATO should also consider a follow-on military declaration that will delineate the areas of both limitations and flexibility accepted by its members. For example, members cannot wage non-NATO wars from the territory of their Allies, but they can, within limits, withdraw certain forces and equipment from NATO for employment elsewhere if needed (as has been done by more than one ally in the past). Alliance leaders already agree on most of these questions, but there should be published guidelines to avoid misunderstandings on the part of the public in times of crisis. A military declaration should also include commitments to appropriate guidelines for defense budgets to avoid a gradual weakening of NATO capabilities by one country after another on the basis of national political pressures. And most important it should include commitments to weapons standardization and cooperation in logistics.

We must remember that while NATO has problems, they are greatly overshadowed by its success and vital importance in the security field. NATO must build on its success and move to a true defense community. Anything less could mean disaster for the West. Success, on the other hand, could mean a bonus for the world in terms of peace and reduced armaments requirements. Detente, SALT, and MBFR could lead to long term security at far less cost in resources if the West does not unilaterally reduce its efforts. In the words of the report of the Randall Subcommittee of the House Armed Services Committee, "laughter would ring through the halls of the Kremlin if unilateral reductions were announced at this crucial point."

A great deal has happened during NATO's first twenty-five years that makes a continuing reexamination of the Alliance essential. But the lessons of the Middle East war argue that the goal of reexamination should be greater cooperation among allies rather than any thought of dissolution. Progress toward an integrated NATO security system will insure necessary modernization of NATO forces at minimum cost and should provide the basis for a second twenty-five years of peace.

PANEL VIII

JAPAN'S FOREIGN POLICY OPTIONS IN THE COMING DECADE

Panel Chairman: Dr. Martin Weinstein, The Brookings Institution; University of Illinois.

Panelists: Dr. Donald C. Hellman, Department of Political Science, University of Washington.

Dr. Nat White, Institute for Defense Analysis.

General Charles H. Bonesteel, III, USA (Ret.).

Rapporteur: Major John Endicott, USAF, Faculty, USAF Academy.

JAPAN'S FOREIGN POLICY OPTIONS IN THE COMING DECADE

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From the end of World War II until the early 1970s, Japan's foreign policy, including its military-strategic role in international affairs, was membership in the Free World, built around close, cooperative security and economic relations with the U.S. The major premise of this policy was the Cold War, meaning the existence of fundamentally adverse relations between the U.S. and the Soviet Union, and also between the U.S. and China. So long as these Cold War, adversary relations dominated Asian international politics, and so long as the U.S. was unequivocally committed to being a major military actor in East Asia and the Western Pacific, then Japan's geographical location athwart the sea and air approaches to Northeast Asia, its skilled, disciplined people and its industrial capacity, made it an indispensable ally to the U.S. And as America's most important Cold War ally in Asia, Japan was able to satisfy its international needs for security, for trade and for status.

Since 1971, however, the U.S. policy of building a new structure of world peace, based on more stable, cooperative relations with both the Soviet Union and China, has shaken to its foundations the international order and the alliance systems which were concomitant to the Cold War, and which were also the underpinnings of Japan's foreign policy. The new American policy, as a consequence, has posed a fundamental challenge to the viability of the Japanese government's established foreign policy.

The October War, and the petroleum supply problems and leapfrogging price increases which accompanied and followed the fighting, have deepened doubts and suspicions in Japan, as well as in West Europe, over the willingness and ability of the U.S. to maintain the system of military and economic alliances which until the 1970s were the framework for a relatively orderly and prosperous international system. The October War, and its economic consequences, therefore, ought to be seen as another set of steps leading away from an imperfect but relatively stable Pax Americana, toward a new international system, still fuzzy in outline and uncertain in performance, which is presumably intended to evolve out of detente.

The purpose of this paper is to speculate on the Japanese response to this challenge: firstly, by considering in historical perspective the constraints and options within which Japanese foreign policy makers operate; and secondly, by defining the nature of the challenge which Japan is facing.

I.

For Americans, who are accustomed to believing that they can define for themselves the nature of international relations and the level of their involvement in these affairs, it is difficult to comprehend the harsh, narrow necessities of Japan's international position. The Japanese have not

been able to indulge themselves in the luxurious range of choices that have been open to us. Since they were forced to give up their rigid isolation in the middle of the nineteenth century, their options have been severely circumscribed by the requirements imposed by industrialization and by Japan's geography. In a fundamental sense, Japan's present international position has its roots in the beginnings of its industrialization in the late nineteenth century, and it is reasonable to anticipate that the essentials of this position will persist as long as Japan is an industrial society.

The leaders of Japan during the reign of the Emperor Meiji (1868-1911), in common with their counterparts in much of the non-Western world, perceived that the superior weapons and military forces which enabled the Europeans and Americans to dominate much of the world, were a product of industrial, machine society. They quickly concluded that the way to survive in the Western dominated world was for Japan to have its own factories, arsenals and shipyards in which to build its own weapons. Unlike most of the non-Western world, the Japanese rapidly and thoroughly accomplished these goals. Before the Meiji period ended, Japan was making its own war ships and artillery, and had fought successful wars against China (1894-95) and Russia (1904-05). As a result of these wars, Japan acquired an overseas empire that included Southern Sakhalin, Korea and Taiwan. Moreover, Japan entered the world economy as a manufacturer—an importer of raw materials and an exporter of industrial products.

Contrary to the initial expectation of the Meiji leaders, however, industrialization and modern weaponry, while they did lead to wealth and power, did not provide Japan with a high degree of independence and security. By the 1920's, if not earlier, Japanese leaders, such as Prime Minister Hara Kei, Foreign Minister Shidehara Kijuro, and Admiral Kato Tomosaburo, saw that industrialization and economic growth were also leading Japan into a position of chronic economic and strategic vulnerability.

The explanation of this analogy is simple. The Japanese islands are extremely poor in mineral resources. Virtually all of the fuel and raw materials necessary for industry must be imported. The greater Japan's industrial production, therefore, the greater its dependence on imported fuels and raw materials. This was true in the 1920s, and it is true today, even though the value of foreign trade and imports has been a dwindling proportion of Japan's gross national product. For what this dwindling proportion means is that the Japanese have been adding greater value to their finished product and consuming more of it themselves. *Yet the energy and material necessary to fashion the finished product remain indispensable.* Moreover, as Japanese industry has grown, the absolute quantities of imported fuels and raw materials have also grown. Japan now imports more petroleum than any other country in the world. As a result of this process, Japan has had to extend its search for resources far beyond East Asia, to North America, India, the Middle East and Latin America.

The essence of Japan's international position, then, is that its survival as an industrial state is contingent on its access to a worldwide network of fuels and raw materials. And the unavoidable task of Japan's foreign policy is to maintain that access.

The fundamental foreign policy options for Japan, therefore, derive from the question of whether and how Japan can maintain this access. Japan must either: (1) be able to buy from those who control the sources of energy and raw materials; or (2) it must control the sources itself; or (3) it must face the prospect of industrial stagnation and decline.

In the years before the Pacific War, when Japan's energy and raw material requirements were only a small fraction of what they are now and could conceivably have been satisfied within the Asian-Pacific region, Japanese foreign policy makers were conscious of these three options. The decision, in 1941, to make war against the United States and Great Britain, was taken in the belief that: (1) the first option, peaceful trade, had become unworkable in the international environment of protectionism and violence of the 1930s; (2) the U.S. was pushing Japan toward the third option of industrial stagnation and decline by means of its embargoes on Japan's vital imports of petroleum and scrap iron; and, (3) the second option, the creation of a Greater East Asian Co-prosperity sphere, could only be realized if the U.S. and Great Britain were driven out of the region by military force.

The Pacific War, of course proved to be the greatest disaster in Japan's history, leading as it did to economic collapse, total military defeat and the loss of empire. For Japanese of all political persuasions the lesson taught by the war is that Japan cannot hope by military means to win control of a sphere of influence within which it can enjoy economic and military security. This lesson has been reinforced by Japan's phenomenal postwar economic growth, which has rendered the notion of regional autarky hopelessly obsolete by extending Japan's economic lifeline far beyond East Asia and the Western Pacific. Moreover, the development of nuclear missiles has made narrow, densely populated, intensively industrialized Japan into one of the most militarily vulnerable of the developed countries. In short, a traumatic military defeat, economic growth and developments in military technology have combined to eliminate the second option as a rational choice.

It should be recognized, however, that it would require extraordinary qualities of resignation for any government to accept, without a struggle, the impoverishment of its country. Moreover, faced with a severe decline, it is extremely doubtful that the present constitutional government, run as it is by moderate men who would be most likely to exercise this restraint, could survive. The desperate nature of Japan's problem could very well produce a flood tide of emotional, violent nationalism which would sweep away the present government and replace it with authoritarian, extremist leaders. These leaders would probably make Japan a nuclear power, and set out on an adventurist, militarist foreign policy.

The rationale for such a policy would not be the likelihood that it would regain prosperity and security for Japan. On the contrary, Japan would be depicted as facing two exaggerated, melodramatic choices—a slow, painful, withering death—or a virtually suicidal yet gallant effort to win a decent national livelihood. Put in a desperate frame of mind, the Japanese might well choose to risk what they will perceive as a glorious national death in preference to national failure and humiliation.

The moderate cautious men who now make Japan's foreign policy are convinced that a policy of military adventures would lead Japan to disasters and disgrace far worse than an economic decline, and quite possibly to an international catastrophe as well. It is not a rational option, in the sense that it provides a logical means to a desirable end. It is not an option that reasonable men would choose. But it cannot be entirely excluded.

The probability that Japan could find itself facing a future of economic stagnation and decline has recently been underestimated, and almost lost sight of in a spat of optimistic forecasts such as those by Herman Kahn and Saburo Okita, which project Japan's phenomenal growth of the 1950s

and 1960s on through the remaining decades of this century. These forecasts of a Japanese cornucopia are no more likely to materialize than comparably extreme but pessimistic economic forecasts made in the late 1940s.

It is worth recalling that in the late 1940s, only an irrepressibly cheerful minority of economists were ready to predict that Japan would ever reach its prewar levels of per capita income or production. The outlook was for chronic Japanese poverty. One of the key assumptions of those gloomy forecasts was the unavailability of raw materials and markets for Japan in the world economy. In the late 1940s the world economy was in shambles, its future highly dubious, and Japan was still under quasi-wartime blockade.

The optimistic Kahn and Okita forecasts are based on the assumption that the booming international economy of the 1960s, characterized by relative political tranquility, monetary stability, trade liberalization and cheap, abundant energy, will persist into the indefinite future. In both cases the forecasters have made the unrealistic assumption that the international conditions prevailing at the time of their projections would continue into future decades. I believe that the prophets of cornucopia will prove as false as the prophets of poverty. The Japanese economy is more dependent, more easily isolated and is, therefore, more susceptible to international disturbances than those of the U.S., Western Europe or the Soviet Union. In a world economy characterized by increasingly fierce competition for markets, and dwindling resources, Japan will be at a distinct disadvantage. Japan's economic well-being in the coming decades will only be achieved by an unlikely combination of brilliant Japanese management and a willingness on the part of others not to exploit Japan's economic vulnerability.

Against the background of this broad historical and strategic analysis of Japan's international position, one can begin to understand why Japan's foreign policy makers have not seen the much publicized end of the Cold War as an opportunity to strike out on a new, bold, independent course. The conservative, prudent men, who have been guiding Japan in international politics since World War II, do not see the security and prosperity they achieved in the 1950s, and 1960s as a springboard from which to project Japan as an independent strategic actor in global or regional politics. They realistically perceive that Japan's industrial development and prosperity are more a source of vulnerability and weakness than of strength. They are keenly aware of how limited their foreign policy options are. They can only hope that the American detente, based as it is on the Nixon Administration's concept of a fluid, pentagonal, global balance of power, is not a euphemism for a world of cutthroat economic nationalism and political and military instability. For Japan is not equipped to cope with such a world.

II.

To state, as I have in the introduction, that the American policy of detente with the Soviet Union and China poses a fundamental challenge to the foreign policy followed by Japan since World War II, does not mean that the Japanese government has been thrown into an immediate, urgent foreign policy crisis. On the contrary, in the short run, American detente policy has had certain benefits for Japan, domestically as well as internationally. As a lightly armed trading state, dependent on a stable, relatively peaceful international environment, Japan has benefited from the relaxation of tension resulting from the American military disengagement from Vietnam, from the SALT I agreements, the Nixon-Brezhnev summits, and from the improvement of U.S. relations with China.

The President's visit to China in February 1971 set the stage for Prime Minister Tanaka's China visit in September of that year, during which formal diplomatic relations were established between Japan and the People's Republic of China. The question of when and how to normalize relations with China had plagued Japan's ruling Conservatives since the 1950s. The Opposition parties had persistently demanded normalization, arguing that non-recognition was absurd, contrary to Japan's interests, and was a policy imposed upon Japan by the United States. By 1970, a growing number of Conservatives, led by former Foreign Minister Aichihiro Fujiyama, had also come to believe that the continued growth and improvement of existing trade and political relations with China would be inconsistent with an official policy of non-recognition.

The shock of Mr. Nixon's China visit (along with its unfavorable consequences which we shall consider below) settled the recognition debate in the Liberal Democratic Party, led to normalization, and in so doing helped to remove from Japanese domestic politics an extremely irritating and divisive issue.

Nevertheless, despite the advantages which have accrued to Japan from American detente policy, Japanese foreign policy has been challenged in a fundamental, if less obvious sense. This challenge has taken two forms. First, the initiation of the American detente with China called into question the reliability and trustworthiness of the United States as an ally. For two decades, the American and Japanese governments had repeatedly assured each other that they would consult before making significant changes in their policy toward the People's Republic of China. Prime Minister Sato had exchanged such assurance with President Nixon in October of 1970 during the Prime Minister's attendance at the United Nations session in New York. Moreover, following the highly publicized American participation in a Chinese ping-pong tournament in March 1971, Japanese diplomats asked at the Department of State whether the United States was considering changes in its China policy. State Department officials, themselves unaware of Mr. Kissinger's impending trip to China, misled the Japanese, assuring them that no significant changes were being made, and that Japan would be consulted before any such changes were undertaken.

The damage to United States-Japanese relations resulting from what the Japanese call the first Nixon shock (the second Nixon shock was the sudden announcement of the floating of the dollar in August 1971) should not be exaggerated, but neither should it be passed off as a procedural gaffe to which the Japanese reacted with excess emotion. The uproar in the Japanese media was not as unrestrained as one might have expected. The embarrassment and resentment which it generated among Japanese officials responsible for conducting relations with the United States was muffled. As late as the summer of 1973, however, two years after the shock, high Foreign Ministry officials whose careers were built on their management of the American alliance, explained to me how disturbed and anxious they were over the bad faith implicit in the China shock. It is a mistake to dismiss this anxiety as emotionalism and personal pique. It grew out of a cold, objective concern that the United States had shown itself ready to ignore an important obligation to Japan in order to improve relations with China.

Secondly, the doubts about American foreign policy priorities generated by the China shock were conceptualized and given intellectual substance by the President's Foreign Policy Reports, especially in 1972 and 1973. The themes running through these reports are: (1) detente with the Soviet Union and China; and (2) the adjustment and restructuring of alliances. The Reports

repeatedly make the point that in the generation of peace for which it is striving, the United States will remain loyal to its allies. But these assurances are weakened, not only by the priority given to the Soviet Union and China in day-to-day diplomacy, but also by the very structure of peace which the United States government has enunciated as its long-term goal.

Globally, the new structure of peace is to be built on a multipolar, five-power balance, which would include the United States, the Soviet Union, Western Europe, China and Japan. In Asia, four of these power centers, the United States, the Soviet Union, China and Japan, would constitute a regional balance. The Foreign Policy Reports hail the emergence of this multipolar structure as marking the end of the post-World War II era of tense, rigid, bipolar confrontation, and anticipate that the multipolar balance will be maintained by more flexible, relaxed methods. This implies that the United States expects and wants the system of semi-permanent, ideological alliances engendered by the Cold War to be subordinated to, and eventually superseded by shorter term, politically expedient arrangements which cross ideological lines. The Reports explicitly argue that the current detentes with the Soviets and the People's Republic of China are not a tactical maneuver intended to take advantage of the Sino-Soviet split, but rather a fundamental restructuring of the international system.

Japanese Foreign Ministry officials have clearly seen that this multipolar concept is antithetical to the existing United States-Japanese alliance, and to the basic lines of Japan's foreign policy. Japan's defense policy and its foreign economic policy have been based on the assumption that the United States and Japan are indispensable to each other as allies against the Communist powers, most especially the Soviet Union. And Japan's foreign policy makers believe that it is this mutual indispensability which led to the satisfactory resolution of disagreements between the U.S. and Japan on security and economic issues during the 1950s and the 1960s.

In a flexible, supposedly more relaxed multipolar system, however, there would be no indispensable alliances, only national interests to be served by whatever international combinations are expedient. Consequently, if the "multipolar" structure enunciated in the Foreign Policy Reports actually materialized, Japan will either have to look for a new international role, in which its security and economic well-being are only marginally rather than essentially contingent on its relations with the United States, or Japan will find itself in the extremely unfavorable position of having to defer to the United States as an indispensable ally, while the United States treats Japan as dispensable.

This dilemma is not purely speculative and theoretical. The two Nixon shocks of the summer of 1971, were followed in the autumn of 1971 by the imposition of a quota on Japanese textile imports into the United States, which abruptly settled on American terms the long simmering textile dispute. In the aftermath of the shocks and the textile dispute, Japan was persuaded to revalue its currency approximately 35% in the space of 18 months in an effort to help correct the United States balance of payments deficit. The currency revaluation was intended to restrain Japanese exports to the United States, while increasing American exports to Japan. By the summer of 1973, the revaluation had begun to produce this effect, and the balance of payments was moving toward equilibrium. At this point, however, the United States government, in an effort to stem its domestic inflation, abruptly imposed a temporary suspension of American soybean and scrap metal exports to Japan. For Japan, soybeans and scrap metal are critical raw materials. The sudden twist

and turns of American policy were extremely unsettling for Japan. Given a forgiving, charitable interpretation these actions demonstrated a callous disregard of Japanese interests. Or, these actions may be viewed as part of an American design to convince Japan that the alliance is an extremely limited instrument, and that Japan must be prepared to stand on its own.

In the matter of soybeans, the Japanese government finally expressed muted, but public, official displeasure. On the whole, however, the Japanese response to this buffeting was to negotiate all issues in a spirit of compromise, to continue to assert the centrality of the United States-Japanese alliance in Japan's foreign policy, and to carefully avoid any public action or statement that would suggest that the alliance had been substantially altered or challenged. Nevertheless, while determined to avoid a direct, frontal, diplomatic clash which would only further strain the alliance, Japanese foreign policy makers have had to ask themselves a most unpleasant question. Has American toughness toward Japan resulted from a policy of readjusting the terms of the alliance in America's favor, while keeping the alliance intact?—or is American policy seriously intent on pushing Japan into a new international role as an independent actor in a pentagonal, global balance of power?

The future of Japan's foreign policy is more dependent on the course of American policy than on any other factor or combination of factors. And the course of American policy during the past two years, and at the time this is written, is at best ambivalent and unsettling, and at worst, full of dangers for Japan.

III.

Of the major industrial states, Japan is geographically, culturally and politically the furthest removed from the Middle East. And yet, the October Arab-Israel war is having an even greater impact on the Japanese than on the Americans or the Europeans.

It is oil, of course, that most obviously connects Japan and the Middle East. The Arab oil embargo and the related increases in oil prices have badly shaken Japan's economy and threaten to precipitate an end to Japan's political stability as well as its prosperity. Japan currently depends upon oil for 73% of its total energy requirements—much more than the Western Europeans (61%) or the United States (42%). Japan imports 99% of its oil: 80% comes from the Persian Gulf area.

Among the major industrial states, Japan's economy is the most vulnerable to a tightening of oil supplies, and to leapfroging price increases. Five months after the October war, the effect of the embargo and the price jumps has been to reduce Japan's economic growth to zero, while helping to push the wholesale price index up 37.6% since the spring of 1973.

Given Japan's inordinate dependence on oil imports, its stagnating economy, its inflation, and the reputation of the Japanese as economic animals and aggressive businessmen, one might naturally have expected that the Japanese would have dashed ahead of the French in beating a path to the OAPEC capitals to conclude bilateral oil deals. Moreover, given the paucity of Japanese ties with Israel, and the fact that Israel carries no weight at all in Japan's domestic politics, one would not have been surprised to see Japan pay for oil deals by giving in to Arab demands that Japan sever its diplomatic and trade ties with Israel.

In fact, Japan did not take any of these steps. By November 11, the European Economic Community formally announced its support for the Arab territorial demands against Israel, and its members, with the exception of Holland, were on the Arab's list of friendly states: Japan was listed as a neutral, was threatened with oil cuts, and was being pressured to go *beyond* the European Community's position in support of the Arabs. Instead, the government of Prime Minister Kakuei Tanaka waited for Secretary of State Henry Kissinger to complete his November swing through the Middle East, patiently waited for him to make another visit in Peking, and took no decision until after Kissinger had stopped in Tokyo to say that he had not arranged to lift the embargo. Then, on November 22, after a bitter but muted struggle within the cabinet, the Tanaka government announced a pro-Arab position on the territorial issue, virtually identical to that of the European Community. Deputy Prime Minister Takeo Miki was dispatched on a tour of the Mideast, where he offered billions of dollars in loans, and economic and technical cooperation to Egypt, Iraq, Saudi Arabia, Syria, Iran, and, on a lesser scale, to Algeria, Morocco, Sudan and Jordan. As a consequence, the Arabs reclassified Japan as a friendly nation on December 25.

As of the end of April, however, these proposed loans and plans for the construction of oil refineries and petrochemical plants remain for the most part nothing more than proposals and plans. With few exceptions, they have not assumed the form of firm commitments. Japan has made no bilateral deals for oil imports, comparable to those entered into by Britain and France. Japan is not sending war planes, weapons or ammunition to any country in the Middle East.

The Japanese government's slow motion reaction to the embargo, and its hesitant embrace of the Arabs can best be understood as resulting from a deep and abiding concern, amounting almost to a preoccupation, over relations with the United States.

Almost one-third of Japan's total trade is with the United States. As a supplier of raw materials and foodstuffs, ranging from lumber and cotton to scrap iron, soybeans and meat, the United States is as crucial to Japan's economic well-being as the Organization of Arab Petroleum Exporting Countries is. Moreover, most of the oil which Japan draws from the Middle East is purchased from the American-owned international majors.

In brief, the Japanese simply could not afford to emulate the Western Europeans in ignoring American policy, and in setting their own course in the Middle East. For the time being, the Japanese are trying not to aggravate or alienate any of their major suppliers and markets, and are hoping that by some miracle the international economy will regain its stability and accessibility.

To foreign observers, the Tanaka cabinet's balancing act in the Middle East appears to be a rational, prudent response to the conflicting pressures exerted by the Arab oil producers and the Americans. To the Japanese themselves, the balancing act looks extremely precarious, and many wonder, with varying degrees of dread and anticipation if, after leading Japan through a quarter century of phenomenal economic growth and political stability, the Conservatives are about to come tumbling down around Prime Minister Tanaka's ears.

The conservative factions, which organized themselves into the Liberal Democratic Party (LDP) in 1955, have had an uninterrupted majority in both Houses of the Diet since 1948. As a result, the Premiership and the cabinet have been their private preserves. The government of

postwar Japan has never changed hands. Japan's democratic political system has yet to pass this critical test. Despite a dwindling in voter support to less than 50% in the early 1960s, the LDP retained its Diet majorities by careful selection of candidates, and as a result of the bickering among and within the opposition parties.

The House of Councillors' election in Japan in early July was a severe test of the LDP and could have proven to be a test of Japan's entire political system if the LDP had not narrowly retained its majority. The LDP held 134 of the 252 seats in the Upper House—a slim majority of 7. If this majority had been lost in the election, the opposition parties would have been in position to threaten the Government with a legislative logjam without precedent under the postwar Constitution. As it is, the LDP requires the expected support of two independents to add to the 126 seats it now holds.

According to Articles 59, 60 and 61 of the Constitution, bills become laws after passage by a simple majority of both Houses of the Diet. In the case of treaties and the budget, if the House of Councillors fails to accept the decision of the House of Representatives, and no compromise can be reached through a joint committee, the decision of the Representatives shall be the decision of the Diet. With the exception of the budget and treaties, however, the Representatives require a second vote and a two-thirds majority to pass a bill into law over the opposition of the Councillors. Since the LDP presently holds 271 seats in the 491 seat Lower House, which is 48 seats short of a two-thirds majority, the loss of the Upper House could have created legislative paralysis, reminiscent of that which occurred in the early sessions of the Meiji Diet in the 1890s.

In this eventuality, the LDP, at best, might have been able to strike bargains with small groups of Opposition Councillors to push through important bills. Temporary coalitions of this sort are generally undependable, and the negotiations necessary to create them would almost certainly generate friction among the LDP fractions, further weakening the party. An LDP Cabinet could also have attempted to rule by administrative regulations and fiat, which would not necessarily violate the Constitution, but would run counter to its spirit. An attempt to administratively circumvent Opposition control of the Councillors would have further alienated voters, and would also have encouraged cooperation among the Opposition parties.

In brief, the loss of the House of Councillors election would certainly have weakened further the LDP's ability to rule, and its ability to deal with Japan's economic problems. Even though they barely won this election, it could well mark the beginning of a period which will require shaky, unstable coalition governments. It is worth noting several of the economic indicators that were causing anxiety for Japan's economic planners before the elections in July and which continue to bode ill for the LDP. In addition to the stagnation in the industrial sector—Ministry of Finance figures show that production fell .5% in the January to April quarter—and the 37.6% annual jump in the Wholesale Price Index, already alluded to: real wages in Japan fell by approximately 10-12% in the first quarter. This drop in real wages fueled the unprecedented strikes and transportation stoppages of this year's Spring Labor Offensive (shunto), which led to an average jump in wages of approximately 30%. These wage increases, together with an average increase of 62% in the price of petroleum products announced in late March, threatened to keep the inflation spiraling upward into the summer, despite the Government's tight money policy, and its attempts to hold prices down.

Obviously, the danger for the LDP in the last election and for the next year or two, is that normally conservative voters will come to believe that the economy is out of control, that their hopes for economic security are disappearing into the maw of stagflation, and that the resulting anxiety, frustration and resentment will generate a protest vote that will end the LDP's grip not only on the House of Councillors, but on the entire government. Even though the LDP managed to retain its majority in this summer's House of Councillor's election, it has won not a victory but only a reprieve. Since the root causes of Japan's economic difficulties are international, and largely beyond the ability of any Japanese Government to correct, I expect that a loss of LDP control will at best lead to a period of weak, unstable cabinets; and at worst would produce a climate of extremism and political violence.

From a longer range perspective, therefore, I would judge that the October War has been instrumental in pushing Japan out of Foreign Policy Option I, towards Options II and III. The question now, is whether Japan will settle peacefully into Option II or will slide and stumble into Option III.

IV.

What, then, are Japan's basic foreign policy options for the remaining years of this decade?

In the realm of rational choices, Japan will either continue to prosper as a peaceful, lightly armed trading state; or it must face economic stagnation and decline—still as a peaceful, lightly armed trading state. Whether Japan will prosper or decline depends primarily on its international political and economic environment, and most especially and specifically on the course of United States foreign policy.

Japan's best hope is that the United States government will recognize the limits and dangers of its doctrine of a pentagonal world balance, and of its policy of detente; that we will choose, once again, to base American security and prosperity on our ties with our Western European and Japanese allies, and not on the chancy proposition that we can avoid the need to consult and accommodate our allies, by building a new structure of peace on the foundation of the Sino-Soviet conflict. Clearly, if we give the Japanese the option of continuing a reliable, advantageous alliance with the United States, that is the option they will choose.

If, on the other hand, the United States continues to seek detente at the expense of its allies; if we continue to work toward a fluid, pentagonal global balance, then Japan's chances of security and prosperity are dim. Japan has been a major beneficiary of the Pax Americana, and Japanese policy makers are correct in their belief that they will find no alternative which will serve Japan as well. Without a firm, American security guarantee, and without dependable access to a stable, flourishing world economy—which was a corollary to the Pax Americana—Japan will face a bleak strategic and economic future. The 1950s and 1960s, which have recently been described as years of needlessly dangerous tension and confrontation with the Soviet Union, will be looked back on nostalgically by the Japanese as a brief golden age. Hopefully, the new international environment will not prove intolerably harsh to the Japanese, and they will adjust peacefully to their economic decline.

It would, however, be unrealistic to assume that Japan will necessarily limit itself to a rational foreign policy, if rationality promises only poverty and humiliation. It should be recognized that once Japan's foreign policy leaves the realm of rationality, it may well become irresponsibly adventurist and catastrophically destructive.

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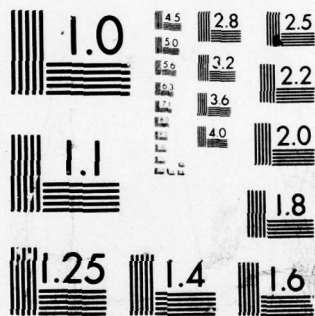
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